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A Treatise on Female Diseases

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TREATISE
ON
FEMALE DISTURBANCES

BY
THE REV. JOHN H. WATSON, M.D.
OF THE UNIVERSITY OF CHICAGO

OF SEBASTIAN NEWTON, M.D.
OF THE UNIVERSITY OF CHICAGO
THE SECOND EDITION

To which is added,
A LETTER ON THE FEMALE FETTER,
BY THE REV. JOHN H. WATSON, M.D.
OF THE UNIVERSITY OF CHICAGO

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A
T R E A T I S E
O N
F E M A L E D I S E A S E S;

In which are also comprehended

Those most incident to PREGNANT and
CHILD-BED WOMEN.

R
By HENRY MANNING, M.D.

THE SECOND EDITION.

To which is added,

A LETTER on the PUERPERAL FEVER,

To an eminent Physician at VIENNA,

Translated from the Original Latin.

L O N D O N:

Printed for R. Baldwin, No. 47, Paternoster-Row.
M DCC LXXV.

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M D C C L X V.

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P R E F A C E.

THE diseases of women form so considerable a part of the practice of physic, that the knowledge of their nature and cure ought certainly to be regarded as a principal object of our attention. So negligently, however, has this extensive field been cultivated by medical writers, that Astruc is almost the only modern author who has treated particularly of the subject: but how little his work is calculated for the improvement of science, those who have ever perused

it can stand in no need of being informed. Let it, therefore, only be remarked in general, that his arbitrary theoretical opinions, his numerous and superfluous distinctions, the whimsical methods of cure which he has often admitted, his excessive prolixity, and, above all, his total omission of the diseases of pregnant and child-bed women, seemed to evince the expediency of publishing a more useful treatise on female disorders.

It is not presumed, however, that what is here offered to the public, can afford much instruction to those gentlemen of the faculty who have enjoyed the advantages of a long and extensive practice, as their
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own experience must have furnished them with most of the observations contained in this volume: but it is hoped that it may be of some use to younger physicians, by guiding them, in a shorter and more direct way than has hitherto been attempted, to a knowledge of the nature and cure of the several diseases of which it treats. It has, at least, this circumstance in its favour, that it is the only work which exhibits a complete system of the diseases of women.

As the diseases of that sex depend principally on an excess or diminution of the menstrual discharge, it was thought proper to prefix a physiological account of
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that evacuation. In treating of the several complaints, however, no speculative system has been adopted; but the method of cure is established solely on practical observations: and the recital of particular cases has been purposely avoided, that the work might be rendered more concise.

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C H A P. I.

Of the Menstrual Flux.

BESIDES the diseases common to all mankind, either from the general laws of the animal œconomy, or the operation of external causes, there are many others, which, by a peculiarity of structure and conformation, are determined to the different sexes. Men, indeed, have but few diseases arising from this source alone; but those peculiar to women are extremely numerous, often dangerous, and sometimes difficult to cure.

In the earliest years of life, the diseases incident to both sexes are, for the most part, perfectly similar; there existing then no cause to produce that diversity so remarkable in the following periods, as the body has not yet acquired the particular

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disposition on which it depends. But no sooner is that season over, and the age of puberty commenced, than the adults of both sexes, by means of several indications, generally begin to grow sensible of some considerable changes effected in their constitution; and therefore, as what happens at this time has so great an influence over the future habit, especially that of the female, we may properly enough set this down as the æra of those peculiar ailments to which she is subjected by her sex.

The first phænomenon which commonly presents itself to the virgin at this critical juncture, is the appearance of that periodical discharge which takes its name from the usual term of its revolutions, and which generally continues to return, after certain stated intervals, for the greatest part of her future life. This evacuation, being the natural consequence of a certain proportion now established between
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the solid and fluid parts of the system and their natural actions on each other, becomes absolutely necessary to the welfare of the individual, as long as the same conditions of the body continue to subsist; which is evident from the various and obstinate disorders that so frequently take their rise from its absence. Thus much, however, being granted, it is nevertheless certain that its relation to health is only limited, and that an immoderate increase of the salutary discharge will be productive of consequences no less pernicious than its partial secretion, or entire suppression. For in this case, as well as in the former, that exact equilibrium in the constitution, which guides the scale of health, will be considerably varied or entirely destroyed. As therefore any remarkable deviation in either of these respects, seems to be of so great importance in the animal œconomy, it may not be improper to take a short view of the

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menstrual evacuation in its natural state, together with its efficient causes and the several circumstances which may influence its periods, duration, and quantity, before we proceed to treat of its morbid effects, or those diseases which result from its irregularities. And this apparent digression may be the more justifiable, not only as it is an axiom in physic, that carefully to investigate the origin of diseases is essential to the knowledge of their cure; but likewise, as all physicians, from Hippocrates down to the present times, have universally considered the monthly evacuation as the great spring and mover in the female system, which regulates the whole in such a manner, as to prove the instrument both of its highest health and most fatal disorders.

The age of puberty, as hath been already said, is the period commonly observed by nature for the first appearance of this evacuation; and accordingly, about the

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the years of fourteen or fifteen, at which time, in this temperate climate, the body arrives nearly at its full stature, most young women, if healthy, are, for the first time, visited with an eruption of red blood from the orifice of the vagina, which afterwards becomes periodical. This discharge, especially in the beginning, is seldom or never so instantaneous as to surprise them unawares, but is generally preceded by some symptoms which foretel its approach. The most remarkable of these are, a sense of heat, weight, and dull pain in the loins and other parts contiguous to the uterus; distention and hardness of the breasts, head-ach, loss of appetite, with frequently a paleness of the countenance, and a general lassitude, or listlessness to motion; though in some cases there is likewise a swelling and numbness of the legs, cutaneous efflorescences, and inflammations of the tonsils, or other parts, accompanied with a slight degree of fever, especially in the first menstruation.

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The flux continues for three or four days, more or less, during which, at a medium, from six to ten ounces of blood may be discharged, and then it ceases of its own accord; but the preceding ailments are generally mitigated, or entirely relieved, before that time. After this the female enjoys her usual state of health, till about a lunar month, or twenty-eight days, from the first attack, when the same symptoms return, but in a milder degree, and running the same course, disappear in a like manner as formerly. From this time, the discharge assumes a periodical type, continuing to return with little variation, at nearly equal intervals, to the decline of life, or the fiftieth year of the age, unless it is interrupted by pregnancy, nursing, or a bad state of health; only the concomitant complaints become gradually milder with each succeeding period, till at last, in many women, they are hardly perceptible.

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Though this be the general tenor of the monthly flux, in such a climate as ours, from its first invasion to its ultimate period, yet it must be confessed that it admits of many exceptions: nor, in the nature of the thing, can it be always uniform and regular in its course; as the difference of particular temperaments, regimen, and modes of life, which have so great an influence over the other functions, must necessarily give occasion to numberless deviations. And, if to this be added the well known power of dissimilar climates, that yet more remarkable variety, to be observed among women of different nations, will be easily accounted for. But the nature and effects of these several circumstances will be better understood, after the true cause of the flux itself has been previously enquired into, which we shall next proceed to investigate.

No subject in physiology has more employed the ingenuity of authors, or excited greater dissensions among them, than the

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periodical evacuation of women, on which we are now entering; a phænomenon which has, at all times, appeared the more singular and extraordinary, as it seems to be peculiar to them alone: for the males of all animals are exempted from it, and it has never yet been observed even in the females of any other species, at least so far as we have any certain and authentic accounts.

This subject, which is obscure in its own nature, has been rendered still more intricate by the many absurd endeavours which have been used to explain it. For mankind, ever precipitate in forming conjectures, have fancied to themselves a thousand idle and ridiculous notions, which, having no foundation in the human frame, have contributed rather to mislead, than guide the mind in the road to truth. The great improvements in anatomy, within this century past, have no doubt enabled the moderns to offer a more plausible solution of this problem than any thing advanced by
their

their predecessors; though perhaps a more accurate knowledge of the animal œconomy is still wanting to make a complete demonstration, and furnish a theory entirely free from all objection. But before we enter on such an account of the cause of this evacuation as is countenanced by the more recent discoveries in physics, it may not be improper to exhibit a general detail of the principal opinions which were formerly entertained concerning it; as such a comparative view will more clearly evince the great superiority of the established doctrine.

Most of the ancients before Galen, observing the great influence of the moon over the other parts of nature, especially the tides, and remarking at the same time, that the natural evacuation of women kept pretty exactly to the term of a lunar revolution, had recourse, for the cause of this, likewise, to the attractive power of that luminary, *ut nodum Dea solveret*. This
theory

theory was entirely consistent with the philosophy of those ages, if the science of astrology, which referred most events to a planetary power, deserves that name. At a time, therefore, when the study of nature, especially of the human body, was but little cultivated, it cannot be thought surprising, if ignorance, the parent of superstition and credulity, should always take refuge in the venerable authority of the prevailing doctrines, in order to account for all such phænomena as could not be unraveled on more rational principles. Accordingly we find what an universal sway this preposterous system obtained by degrees in every department of nature: for each possible contingency being occasionally attributed to a supposed benignity or malignity of some or other of the stars, the heavenly bodies came at length to be considered as the efficient causes of all the good or evil which happened in the universe. In the natural world, winds, storms,
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and tempests, as well as the milder and more beneficent effects of less enraged elements, were derived from them. Even moral qualities and events were charged to the account of these celestial agents; such as the particular temper and disposition of the mind, and the fates and fortunes of mankind: whence arose the so much celebrated doctrines of horoscopes, the calculation of nativities, and the prediction of future events.

Under so general a superstition, therefore, the animal œconomy could not well escape its share of fideral influence; and consequently, not only the natural functions of the body, but likewise its diseases, their causes, and cures, were mostly explained by the ascension and declension, situation or aspect of the reigning planet. By these means, the writings of the earliest physicians are generally so blended and disguised with the jargon of natural and judicial astrology, that it is not easy to distinguish
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the few useful truths which they may otherwise contain. Even Hippocrates himself is not entirely exempted from the weakness of too much credulity in this respect; since, in different parts of his works, but particularly in his letter to his son Theſſalus, he mentions the motions and powers of the heavenly bodies, and the riſing and ſetting of the ſtars, as having a great effect on various diſorders.

But of all the ſuperior orbs, the moon, in particular, as being a planet attending upon our earth, was thought to exerciſe a peculiar power in producing ſome diſeaſes, and regulating the paroxyſms of others. For this reaſon, as hath been ſaid, it was natural enough at firſt to impute the monthly ailments of women to the ſame cauſe, eſpecially as ſuch a notion might be ſtill farther countenanced by the apparent affinity, in point of time, between the lunar and menſtrual periods. But whatever indulgence may be due to theſe leſs cultivated

vated ages, an attachment to so groundless an opinion is certainly inexcusable in modern inquirers. When the light of a sounder philosophy, joined to a better knowledge of the animal œconomy, first dawned upon the world, physicians began to join reasoning with their opinions; in consequence of which, the persuasion of a lunar influence gradually lost ground, as seemingly irreconcilable to this pretended effect; till, in proportion as science diffused a brighter lustre, that hypothesis was entirely abandoned, for more plausible ways of accounting for the phænomena of nature, or retained only by a few whom a superstitious veneration for antiquity had rendered obstinate in their errors.

Amidst so general a reformation, therefore, it is not a little surprising to find, in the list of those who still continued to subscribe to this obsolete opinion, a character of no less eminence in the medical world than that of the celebrated Dr. Mead, who
has

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has pleaded for a planetary influence with so much learning and ingenuity, in his elaborate treatise *De imperio solis et lunæ*; a work which, at the same time that it does the greatest honour to the abilities of its author, gives us a mortifying example of human weakness, in affording so striking a proof of the invincible power of early prejudices. It ought to be remarked, however, in justice to that learned physician, and elegant scholar, that he has not blindly and implicitly, like most of those who had trod the same path before him, admitted such an action of the heavenly bodies on those of animals as no manner of reason could be assigned for. On the contrary, he endeavours to demonstrate, from a number of ingenious arguments, that these splendid orbs, being endowed with a power of producing certain changes in the atmosphere, and acting by that medium on our bodies, are capable of effecting great alterations in them; not,

indeed, by an immediate and unknown, but by a mediate and mechanical operation. Hence, by treating the subject in a more philosophical manner, he has not only rendered the hypothesis more plausible, but added even the appearance of conviction to what had formerly been supported by the credit of a long established authority alone. Notwithstanding the great merit of this performance, however, and the strength of reasoning with which it abounds, the proposition of the learned author must appear extremely inconclusive; as many of the instances, adduced by himself to confirm it, and particularly that which is the object of our present consideration, can be much better explained on very different principles.

We have been the more full in discussing this part of our subject, to obviate, if possible, any impressions which might be received from so high an authority as that of Dr. Mead. For though some may imagine

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gine that all disputes concerning the cause of the menstrual discharge are of no great importance, as being chiefly a speculative point; yet others, who think more justly, will be of a different opinion; as it is well known that theories of all sorts in physic have a very great influence over practice. The doctrine under our present consideration we may affirm to be particularly injurious, by suggesting to its advocates the method of exhibiting emmenagogue medicines, not so much at the natural terms of the evacuation, when they might be attended with the greatest advantage, but rather at certain periods of the moon, which could only coincide by accident with those of the discharge; by which means the laws of nature must be greatly violated.

Upon the whole, a few strictures will be sufficient to explode the idea of a lunar agency, as altogether inadequate to this effect. Were such the principal cause of the monthly flux, all women, at least all
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those in the same hemisphere, should be affected at one and the same time: but this is contradicted by experience, as so many thousands are indiscriminately seized with their *menfes* under all the different phases of the moon. To ascertain this point, many observations have likewise been made in convents, where the identity of climate, regimen, and every other material circumstance, might be supposed to produce a particular concurrence of time, if such a regularity were possible; and yet, in these recesses, no difference could ever be perceived from the usual course of nature in other women, who lived more at large, and in all the variety of opposite circumstances. Besides, as the moon must act uniformly on all animal bodies, the females of other kinds would certainly, on that supposition, be equally subject to a similar discharge; and even men, and other males, ought likewise to

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be affected with some periodical change, though of a different nature: but as neither of these is the case, we may urge from hence an additional argument against the influence of the moon in the present question.

The next hypothesis, respecting the cause of this evacuation, was that of Galen, who, on the principles of the peripatetic philosophy, introduced many new theories into physic. His opinion was, that it proceeded entirely from a plethora, or a redundancy of blood and humours; which doctrine he strenuously maintains through the whole of his works, and as warmly disputes against Erasistratus, and others, who patronised the preceding theory. But as the same hypothesis has been generally adopted by the most eminent among the moderns, and greatly improved by their several labours, we shall hereafter have occasion to consider it more fully in treating of the more recent opinions on the subject.

The great authority of Galen made his opinion in this, as well as in all other matters relating to medicine, long be received as the only rule of judgment; but when the chemical physicians began to take the lead, they exploded the former systems, and modelled the theory and practice of physic entirely on the principles of their own art. Ferments were now supposed to exist in every part of the human body, and all the functions of nature were ascribed to their action. Accordingly the menstrual flux, like the other secretions, was explained by a particular effervescence: but these dogmatic inquirers did not agree amongst themselves about the nature and seat of the fermenting cause. Some imagined it was owing to the bile, others to the acrimony of some stagnating humours; and while many thought that its stimulus was confined to the uterus alone, not a few were of opinion that it was universally diffused through the whole vascular system.

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But whatever it was, or wherever lodged, they unanimously maintained, that, by exciting a fermentation, it purified the blood once a month from all noxious particles, and that the menstrual evacuation, like the flowers and dregs of other fermenting liquors, was the impurities thrown off by such a depurating process; with a thousand other ridiculous conceits.

But nothing can be more inconsistent with the laws of the animal structure, and the nature of its juices in general, than the idea of such stimulating ferments: and the uterus in particular can be as little suspected of an inherent acrimony as any other part of the body; where there is nothing to be found, in its natural state, but the purest arterial and venous blood, and the mildest mucous humours. Did the periodical evacuation owe its rise to such an operation as has been here alledged, it might be expected that the blood discharged should partake, in some measure, of the
qualities

qualities of the particular ferment; as we are well assured that ferments, in all other fluids, have a power of assimilating some part of them into their own nature: yet no properties, different from those of the remaining mass, have ever been discovered in the menstrual blood by the most accurate observations. To mention no other objection, it seems extremely difficult to account, why such a ferment should only exert itself at particular periods of time: why it should remain perfectly inactive for the first fourteen or fifteen years of a woman's life: and lastly, why it should entirely cease to act about the age of forty-five or fifty. These and such like difficulties are totally inexplicable upon the principle of ferments; and it is no small wonder, therefore, to find so many men, otherwise eminent for learning and judgment, lend their sanction to an opinion every way so intenable and absurd. But as this doctrine is equally chimerical with

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that of the lunar influence itself, the chemists would seem to have invented it, not so much from any difficulties with which they saw the more probable theory of a plethora incumbered, as from that ostentatious vanity, and arrogant confidence in the superior excellence and utility of their own art, for which the chemical sect has always been distinguished.

Others have, with as little reason, assigned periodical spasms as the cause of the menstrual flux. But in answer to this opinion we need only observe, that it would be equally difficult to account for such a cause as for the effect itself. In the first place, we can see no reason, why these spasmodic affections should constantly return at certain stated periods. And again, though that point were granted, we would still continue at a loss to conceive, why the blood, repelled from any particular part by such a constriction of its vessels, should

should be determined towards the uterus rather than to any other organ in the body.

Besides the opinions hitherto enumerated concerning the cause of the female evacuation, Dr. Astruc has endeavoured to account for it by the intervention of certain sinuosities in the texture of the uterus; and somewhat of the same opinion has been likewise espoused by Dr. Simpson of St. Andrews. But as no such texture seems to be countenanced by the observations of the best anatomists, this doctrine must also be considered as void of foundation. While we pass this censure, however, we must confess that the treatise of the ingenious author last mentioned, on the system of the womb, is worthy of an attentive perusal.

Having thus found reason to reject all the preceding theories, by whatever respectable authorities they have been successively supported, we shall now proceed to inquire more particularly into the doc-

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trine of a plethora, which, as we have already observed, was originally invented by Galen. From his time, notwithstanding other temporary innovations in physic, it still continued to maintain a considerable pre-eminence, as his sect was always the most prevalent: and it seems at present to be almost universally adopted, as what appears to be the most conformable to the laws of the animal œconomy, which, of late years, have been better ascertained by more accurate physiological researches.

Those among the moderns, who have contributed most to cultivate and establish this doctrine, are our two celebrated countrymen Pitcairn and Friend, the great Boerhaave, and illustrious Baron Haller. But they are divided among themselves as to the nature and extent of the plethora in question; some contending for a general, and others for a partial or local one. The former opinion, which was that of Galen and his followers, has been strenuously maintained

tained by Friend, Boerhaave, and Haller ; while the latter has been no less warmly espoused by Pitcairn, and others of the mechanical physicians: and both parties have supported their different theories by enforcing, with much learning and ingenuity, the several productive causes of that species of plethora for which they respectively contend.

The theory of a general plethora being the most ancient, as well as the most universally received, it may be proper to begin with an account of the foundations on which it has principally been erected.

The arguments, produced in support of this opinion, may be considered as of two sorts; first, those which are made use of to prove, that a plethora actually exists in the female body; and secondly, such as are adduced to shew, that this plethora, or redundant blood, must be determined towards the uterus, there to be evacuated, rather than by any other outlet.

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With respect to the former, it is to be observed, that, from the first moments of life to a certain age, the whole vascular system is continually distended and enlarged in all its dimensions, by the force of the heart, propelling the blood and humours along its several canals; and to this circumstance the body owes its augmentation and growth. This increment, however, is not proportionally equal in equal given times. It is always most remarkable in infancy; because the action of the heart is then much greater in proportion to the resistance of the solids, which, on account of their great softness and flexibility, easily yield to the distending force. But in process of time, as the fibres will be daily acquiring greater degrees of firmness and rigidity, the relative force of the heart will also be diminishing in the same ratio, and consequently the growth of the body will necessarily be retarded, or become more gradual and slow; till, at length, the increased strength of the

the solids, resisting any greater distention, puts a final stop to its farther enlargement. The stature having thus attained its appointed height, or nearly so, which happens sooner in some women than in others, and generally sooner in that sex than in men, it is easy to conceive, the health, appetite, and digestion remaining the same, that an equal quantity of blood continues still to be prepared as before, and consequently, that the bulk of its whole mass will now be to the containing vessels, which cease to be any longer enlarged, in a much greater proportion than formerly; or, what amounts to the same thing, it necessarily follows that a true plethora must be produced.

But besides this general cause of a plethora, which is in some measure common to both sexes at their full state, the advocates for this doctrine maintain, that women are by nature more liable to such a redundancy, on account of the greater disproportion between the quantity of the ingesta

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ingesta and excretions in that sex. Women, we are told, take in as much, or nearly as much nourishment as men, and therefore they must generate an equal quantity of blood : but that, the *vis vitæ* in them being considerably weaker, by reason of the greater softness and delicacy of their frame, as well as their more sedentary and inactive sort of life, less of the vital fluid will be sent to their glands and the cutaneous emissaries ; and consequently, secretion being always in proportion to the force of the heart and *momentum* of the blood, that less will be discharged by the glands of the skin and other excretory organs. From this difference, therefore, in the two sexes, namely, so great an inequality in the discharges, while the quantity of blood and humours is so nearly the same in both, it is contended that the female body must have a natural tendency to a plethoric state. This conclusion, indeed, is not only conformable to the laws of the
animal

animal œconomy, but even seems to be farther supported by statical experiments, and observations on morbid cases. In regard to the latter, there are certainly some circumstances which would induce us to believe that women, *cæteris paribus*, contain more blood than men; otherwise, it will be difficult to account, why a weakly woman shall, without any manifest injury, sustain a greater loss of blood, in a given time, than a robust man; as may frequently be observed in profuse uterine hæmorrhages.

From this disposition in women to generate more humours than is absolutely necessary for the support of their own bodies, it evidently follows that a daily accumulation of superfluous blood must ensue; and it is no less evident that this superfluity will in time increase to such a degree as greatly to oppress the whole vascular system, and thereby give rise to a great variety of complaints, unless it is occasionally evacuated by some outlet or other.

other. But nature has wisely provided against these inconveniences by means of the menstrual flux, or that periodical discharge from the vessels of the uterus, which constantly begins as soon, and continues as long in life, as the state of the body requires such a preservative. This leads us, in the second place, to consider the reasons, why the redundant blood should be more especially determined towards that organ, and exert a greater force upon it than any other part of the female system.

The structure and situation of the uterus will readily account for this effect. Not only its texture is soft, cellular, and spongy, but it is supplied with larger and more numerous arteries than any other part of the body, of an equal bulk, while at the same time their coats are thinner and weaker in proportion to their diameters; whence it will more easily yield to any distending force. It is also lodged in a pelvis considerably larger than that of a man,

man, where it has sufficient room to be extended in every dimension. All these circumstances greatly favour a derivation into the substance of this *viscus*. But its veins having not only smaller capacities, and stronger and more resisting sides, compared with their corresponding arteries, than any where else, but likewise wanting the assistance of valves and muscular pressure to forward the return of the blood, the consequence must be, that a superfluous quantity will be accumulated in the vessels of the uterus and adjacent parts: from whence the oppression will be propagated over the whole body, and thereby the symptoms, which commonly precede the eruption of the *menfes*, be produced.

The uterine arteries being thus greatly distended by the overplus of blood not taken off by their concomitant veins, the lateral openings into their small lymphatic emissaries, which terminate in the cavity
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of the uterus, must be dilated along with them, till widening by degrees, they give way at length to the impulse of the accumulated fluid. At first, these minute vessels, whose natural office it is to transmit nothing but the finest vapour for moistening the internal surface of the uterus, will only receive the thinnest and most watery parts of the blood; and this is the reason of the ferous appearance always to be observed at the beginning of every menstrual period. But as they will be excited into more frequent oscillatory motions by the unusual stimulus of this fluid, they will by that means, joined to the weight and pressure of the incumbent mass, and the propelling force of the heart, be at length stretched and enlarged to such a degree as to give admittance to the red blood itself, which they will gently discharge into the cavity of the uterus, from thence to be entirely conveyed out of the body by the passage of the vagina.

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The discharge, having once begun, will continue for a longer or shorter time, according to particular circumstances, till the vessels are entirely freed of their load, or the plethora is wholly exhausted. After which, in proportion as the small lymphatic branches begin to recover their elasticity, and contract their diameters, by a removal of the cause which had kept them distended, the evacuation will be gradually diminished in quantity, as well as altered in quality; becoming more and more of a serous and diluted nature, in the same manner as happens with the lochial flux, till at length, these minute vessels having returned to their usual dimensions, and now permitting nothing to pass but the vaporous lymph already mentioned, it entirely disappears. It will naturally return, however, at its next period, which commonly happens within the space of a lunar month, when a new plethora, arising from the same causes, and gradually accumulated,

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cumulated, will again demand a similar discharge.

That the transmission of the blood thro' the minute arterial ducts of the uterus, is performed in the manner now described, seems to be perfectly analogous to what frequently happens in other parts of the body, where the vessels are of a texture equally delicate, and, in their natural state, transmit nothing but the finest lymph; of which, to mention no other, the inflammation of the *tunica conjunctiva* of the eye is an eminent instance.

As, therefore, in many cases where the blood is observed to take some new and uncommon route, it would be absurd to suppose any other change than a mere dilation of the vessels; and as such an enlargement alone will sufficiently account for the production of the menstrual flux, it seems not a little extraordinary that a man of so great learning and judgment as
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the late celebrated Dr. Friend should, along with the patrons of a lunar influence, and chemical effervescence, have supported so improbable an opinion as that of the blood forcing its way by a rupture of the uterine vessels, in every return of that evacuation. Were such the case, pain, inflammation, and other bad consequences would certainly ensue, and continue for a long time after the termination of the period: whereas, on the contrary, it is uniformly found, that every symptom of uneasiness vanishes immediately along with the eruption. Besides, the hard cicatrix, consequent to such a laceration, would necessarily create a greater resistance to the *impetus* of the blood at the next period; which resistance would also increase with every repetition of the same cause; so that the effluent blood could not often force its way through the same vessels. Such an hypothesis, therefore, is equally erroneous and vio-

lent, as being repugnant, in every other respect, to the ordinary course and mild procedure of nature.

Though the doctrine of a general plethora, as having so evident a congruity with the laws of the animal system, may seem to account for the menstrual discharge in a more natural and probable way than any other theory hitherto advanced, yet even this likewise has by some been opposed, as liable to many objections. Thence has arisen the opinion of those who admit only a local plethora, or a particular fulness and distention of the uterine vessels alone, in the time of the *menfes*; as they imagine the whole phænomena can be equally well explained on this hypothesis, without any of the difficulties to which the other is exposed.

The substance of this theory is, that the blood will be solicited in larger quantities to the uterus than any where else, on account

count of the number, distribution, and particular structure of its vessels: that likewise its motion thence will be retarded for various reasons, but particularly that of the perpendicular situation of the uterus, which, say they, will greatly obstruct the returning fluid, as proceeding in a direction contrary to its own gravity: that these causes of themselves may produce a periodical accumulation of blood sufficient to excite the *menfes*, independent of any general plethora: and that the symptoms which accompany the discharge, and chiefly invade the uterine region, are entirely demonstrative of such a local affection of that part.

Those who maintain this opinion exaggerate too much the consequences arising from the situation and vascular texture of the uterus. Whatever may be attributed to these circumstances as auxiliary causes, in promoting a periodical derivation of blood towards that part, it would be too

much to suppose they are capable, of themselves, of producing such an effect, independent of a general plethora. It seems enough to admit that the uterus by this means receives a larger proportion of the accumulated blood than any other part of the same magnitude; not that it is necessarily disposed to any such particular repletion.

In regard to this argument from the perpendicular situation of the uterus, it is as little conclusive; as the same direction of the blood vessels ought likewise to produce a plethoric stagnation in other parts. Besides, it would necessarily follow from that supposition, that a woman confined to her bed for any considerable time, should during such confinement be entirely exempted from her *menfes*; because in that situation, the erect position of the uterus is changed into an horizontal one: yet experience clearly evinces the contrary, both as to the frequency of the periods, and the quantity of the discharge.

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Their conclusion from the symptoms perceived in the uterus, towards the approach of the periods, is also liable to many objections, of which it may be sufficient to mention only a few.

First, the sense of weight, pain, and tension, in the breasts, head, and other parts, even previous to, and accompanying the uneasiness in the uterus, renders it highly improbable that the plethora is confined to that organ alone. Some, indeed, have endeavoured to answer this objection, by ascribing these more general affections of the body entirely to the power of sympathy. But this can never be admitted, as the uterus is often affected with a variety of disorders, without propagating any such sympathetic feelings to the remoter parts.

Secondly, why should any impulse be particularly directed towards the uterus, so as to create a distension of its vessels alone, while at the same time, no such

effect is admitted to take place in any other part, especially those more immediately connected with it? Can it be supposed, in order to account for this, that the heart is endowed with an elective power to produce so peculiar a determination? Such an allegation, surely, would be too gross and absurd for the most zealous patron of the present hypothesis.

In the last place, if a partial plethora be the true cause of the menstrual flux, it may reasonably be asked, how shall we account for the many additional circumstances which either restrain or promote the discharge? Why are nurses, or others who have undergone large evacuations, so generally free from it? Why, in the case of uterine obstructions, does the blood so frequently force a passage for itself through the lungs, nose, and fingers ends, or other parts equally remote? And lastly, why should the evacuation from any of these parts

parts procure a temporary compensation for that of the uterus?

These, and many more objections, are utterly unexplicable on the supposition of a partial plethora: but the subject admits of an easier and far more probable solution, if we allow the plethora to be general; as the universality of the symptoms before the eruption, the frequent translocation of the blood from the uterus to other parts, and all the other circumstances just now mentioned, will more naturally coincide with the idea of such a cause.

From observing that the head, breasts, and other parts are affected as soon as the uterus, towards the term of the menstrual periods, there arises the strongest reason to believe, that there is at this time a preternatural fulness and distension of all the vessels of the body, as well as those of the uterus, by which the sense of weight and pain, and the other symptoms are so generally produced.

Farther,

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Farther, when the uterus is so much obstructed that the blood cannot find a way through its ordinary channel, it is often transferred to other parts, where meeting with less resistance, it opens a new passage, and continues to flow till the usual quantity is evacuated; after which it will stop of its own accord, and all the preceding symptoms of uneasiness will be as effectually relieved as by the natural discharge. This affords another strong presumption that there is, on such occasions, an overplus of blood in the body, which cannot be detained without disturbing the system; otherwise, what reason can be given why it should force itself a way by so uncommon and violent a method? or, why should the symptoms so readily abate with such a diminution of its quantity, if they had not owed their rise to its former superabundance?

It will likewise be easy to account, on the same principle, for the general cessation

tion of the uterine flux in women who are considerably drained by other evacuations, such as long continued ulcers, frequent bleeding, the giving of suck, &c. In these cases it is evident, that the true productive cause must necessarily be wanting; namely, there will be no plenitude in the vessels to furnish matter for the discharge, because the superfluous fluids are constantly carried off in a different manner. This, however, ought not to be the case, if we admit a local plethora only; as on that supposition, the flux should still proceed in its ordinary course, independent of other accidental discharges, which could have but little effect in preventing the usual accumulation in the uterus, if that had no sort of connexion with a more general repletion.

Besides the arguments just now made use of, as arising more immediately from the laws of the constitution, another evident reason may be urged, from the final intention

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tion of nature in regard to this evacuation, why the plethora should be general, and the redundancy discharged by the uterine vessels. Women being designed for the nutrition of the foetus, it seems absolutely necessary that their constitutions should be so framed, as to prepare a greater quantity of blood than is requisite for the support of their own bodies. Such a faculty, however, could answer no end, unless there were likewise some suitable contrivance for applying the superfluous portion to its proper use. On that account, the accumulated blood is periodically discharged through the vessels of the uterus, that these, by being accustomed to a gradual dilatation, may the more readily convey its natural provision to the included embryo in time of pregnancy.

Such are the arguments commonly adduced for the doctrine of a general plethora. Several objections, however, have been raised against it, of which we shall mention

mention a few. It has been urged, for instance,

1. If this evacuation depended upon a general plethora, why a periodical hæmorrhage should not likewise be common to men?

2. If the menstrual discharge be so necessary for the purposes of procreation as has been commonly alledged by the advocates in favour of this hypothesis, why it should be totally wanting in the females of every other species?

3. Why women should generally begin to menstruate so very soon as in four or five weeks after delivery, when, both on account of the great loss of blood they have sustained, and the low and thin diet on which they are commonly kept in childbed, they can hardly be supposed to be in a plethoric state?

To these objections it may be briefly replied as follows:

1. Men

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1. Men are not equally disposed to a plethora with the other sex, because in them the *vis vitæ* being much stronger, the superfluous quantity, before it is accumulated in any great degree, is more apt to be gradually carried off by one or other of the excrementitious discharges. And hence it is, that Sanctorius and others have frequently observed in men a periodical increase of the urine or perspiration, corresponding pretty nearly to the monthly flux of women.

2. In respect to other animals, the particular texture of their uterus, which is rather a continued vagina, seems but indifferently calculated for the purpose of menstruation. That organ in them is thin and membranous, and far from being so soft, vascular, and yielding as in the human species: wherefore, it can neither receive the blood in an equal quantity, nor transmit it with the same freedom and ease. This sufficiently accounts for their
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want of a periodical discharge; and though they procreate without it, that circumstance can never be justly urged as an objection against the doctrine of a general plethora, till physiologists have more clearly ascertained the manner in which nutrition is performed in the brute foetus.

3. In answer to the last objection, it may be observed, that in all animals, absorption, or the power of generating new fluids, is always proportionable to the former degree of inanition, or the demand of the body for a fresh supply: and this faculty seems so very essential, that without it, patients labouring under inflammatory disorders, which require large bleeding, and other evacuations, as well as the most abstemious regimen, would never be able to recover. Upon the same principle, therefore, we may readily account for so early a menstruation after delivery. For, the woman's body having before been so long habituated to prepare

a superfluous quantity of blood, the same disposition will naturally again exert itself, as soon as the usual purgations are considerably abated; otherwise, it would be difficult to say, how the mother, who immediately commences nurse, could afford the necessary nourishment to the sucking infant. This fact, however, being undeniable, it cannot appear surprising that a woman who does not give suck, should, in a few weeks after child-bed, accumulate such a quantity of blood as may be sufficient to produce the menstrual discharge.

Upon the whole, the most probable account of the menstrual evacuation seems to be as follows. That women constantly prepare a superfluous quantity of blood, from whence a plethora necessarily arises, which, in the nature of the thing, must be general. That when this has arrived at a certain height, nature, to free herself of the load, makes occasionally an effort for its discharge, always in that course

where it meets with the least resistance. That the uterus, both from its structure and situation, is not only well adapted for affording such a passage, but is necessarily the channel made use of for that purpose, in order to answer the grand intention of nature in the propagation of mankind. That consequently, from all these several considerations, a general plethora is the immediate and efficient cause of the menstrual flux, and the nutrition of the foetus the ultimate and final cause of the plethora itself.

From the preceding account of the monthly evacuation, as owing to a plethora, it is easy to perceive, as has been formerly observed, that its progress cannot always be uniformly the same in different women, nor indeed in the same woman at different times; since the term of its first appearance, the frequency and duration of the periods, as well as the quantity of the discharge, must necessarily depend on all

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such circumstances as may increase or diminish either the quantity of the blood, the velocity and force of its motion, or the resistance of the solids. Accordingly we find, that the *menfes* are always accelerated or increased by heat of climate, high living, ease, or any other circumstance that immoderately stimulates or relaxes the system; while on the other hand, a more rigid atmosphere, a laborious life, and penurious diet, produce the contrary effects. For these reasons, the women of warm countries, particularly the Asiatics, where luxury and ease conspire with the climate to overcharge and relax the habit, have always early, frequent, and profuse discharges, and such women are in general extremely prolific. But those who reside in the colder and more uncultivated regions of the north, being more active and robust from a greater constriction of their vessels, and less liable to a plenitude from the meaner
quality

quality of their food, have constantly their courses much later in life, the returns of the periods but seldom, and the evacuation in a very small quantity. Thence it happens that these women are commonly very barren, and the northern countries, for the most part, but thinly inhabited.

The temperate climates hold a middle rank between these two extremes. Yet here, likewise, there are often so great variations, according to the difference of age, constitution, and manner of life, that even in the same individual the circumstances of the flux will frequently vary, along with any considerable alteration in any of these particulars. In general, the plethoric, the indolent, and the luxurious, are most apt to exceed the common standard; as those of a different habit, and condition of life, as generally fall below it. Accordingly, we are told by Dr. Friend, that some of the former class have been known to have a double re-

turn of their periods within the space of one lunar revolution; that in others they have continued for six or eight days together; and in many the quantity of the evacuation has amounted to twelve ounces and upwards.

The phænomena of the menstrual flux suggest two problems in physiology, which, as they may appear somewhat curious, we shall briefly endeavour to account for. The first is, why the flux, having once begun, should not always continue; and the other, why, in temperate climates especially, its returns should for the most part be confined within the term of a lunar month, rather than any other period of time?

As to the first of these questions, it is evident from the principles which have been already advanced, that the flux must be periodical, and not constant. Whenever the discharge has proceeded to a certain

certain degree, the plethora, which is its true cause, is thereby exhausted. By this means the distension is necessarily taken off the uterine vessels, which, by their contractile power, will quickly restore themselves to their natural dimensions; and in that situation they will resist the farther passage of the red blood, till a new plethora, forming itself by degrees, dilates them afresh, and then a new flux unavoidably succeeds: in which manner it will continue to stop, and be renewed, alternately, for any number of times.

In respect to the limitation of the periods, that certainly must be resolved into an established law of nature, whereby the several powers, concerned in this evacuation, require a particular space of time to produce their mutual effect; and it would be no less superfluous to enquire, than immaterial for us to know, why the menstrual flux should be generally limited to a lunar month, than why the heavenly

bodies should be originally ordained to perform their several revolutions in certain stated times, rather than any other periods of longer or shorter duration. The plethora must necessarily require some time to be formed, from the termination of one discharge to the commencement of another; and that time, while other circumstances are equal, will always continue pretty nearly the same; but if these should vary, the time will likewise vary the same in proportion.

In women who are healthy, the flux proceeds in an uniform course to the years of forty or forty-five; at which time the periods become gradually more irregular and protracted, to the decline of life, which, in this temperate climate, is commonly estimated at the age of fifty, when it generally altogether ceases, and with it the capacity of having children. There are many instances, however, of the evacuation continuing some years longer; and
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authors record histories of women who have had their menses, and even proved mothers at a much more advanced age. In general, it ceases sooner in those who have had it early, than in others with whom it has begun later.

The preceding irregularity, and subsequent cessation of the *menses*, are the effect of that disproportion, commencing about the age we have mentioned, between the *momentum* of the blood and resistance of the solids: for at this time the former begins to be considerably diminished, while the latter is equally increased. The uterus, in particular, undergoes remarkable alterations. Many of its vessels are entirely obliterated; others are daily approaching to the same collapsed state; its whole substance is hereby rendered firmer and more rigid than formerly; and its sensibility is continually impaired with the change of texture. In this situation it does not yield so easily as

usual to the action of the heart, which is now becoming weaker; and hence arises the cause of that irregularity of the periods some years before the flux entirely ceases; till at length, the same obstacles increasing by degrees, as old age advances, the uterus returns to almost the same state as before the years of puberty, and is then any longer unfit for its natural functions. For as the menstrual evacuation depends entirely on a due equilibrium between the impelling and resisting powers, it must necessarily vary as those are varied, and finally terminate when the force becomes insufficient to overcome the resistance.

Though the slow and gradual manner in which this change of the uterine vessels is produced, must certainly prevent a number of disorders, to which a more rapid progress of the same effect would otherwise render women liable, yet this critical period of life is commonly attended with a variety of complaints; and these
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are more or less troublesome, according to the length of time between the first deviation of the customary discharge from its usual course and its total suppression. The most common disorders are, vertigo, head-ach, rheumatic pains, hysteric affections, fevers and inflammations of different kinds, bloody urine, and unusual hæmorrhages from the lungs, nose, and other parts; all which proceeding commonly from too great a fulness of the vessels, there arises thence another presumptive argument that a general plethora is the efficient cause of the monthly flux. They are either prevented, or relieved, by a seasonable use of the lancet, and other evacuations, a cooling diet, and temperate regimen.

The menstrual blood has been thought by many to be extremely different from the common mass, and to possess many strange and even noxious qualities. Ancient authors abound with various whimsical

fical relations to this purpose; nor are some of the moderns altogether free from so ill grounded a prejudice. Misled by particular hypotheses, they have imagined, that the menstrual blood being of a venomous and corrupted nature, was expelled from the body, in order to free the habit from its pernicious effects.

These erroneous opinions seem to have originally sprung from Asia, and other hot countries where the menstrual blood, being once extravasated within the cavity of the uterus, and detained for some time among the folds of the vagina, must necessarily acquire an higher degree of acrimony than in more temperate climates. Wherefore, as a commerce with women in that situation, was sometimes observed to produce certain inconveniences to the other sex, it was expressly forbidden by the law of Moses, under the severest penalties; and certain days were allotted for purification, by means of proper ablutions, before

before the Israelitish women, either after their natural evacuations, or delivery, were permitted to renew the freedoms of the conjugal state. The same salutary custom was early adopted by the neighbouring nations, and still continues to be practised all over the East. But the Jewish priests, mistaking the genuine sense of their legislator, interpreted these necessary precautions into an insinuation of some inherent malignity in the uterine hæmorrhage, as the true cause of so rigid an institution; and by degrees, superstition, to which they were naturally much addicted, supplied a thousand chimeras to confirm their opinion. By this means, and the carelessness of succeeding times, which admitted this erroneous interpretation with too implicit a credulity, the menstrual blood came at length to be universally stigmatized as a poisonous recrement. Hippocrates, however, who followed no other guide but nature, affords not the smallest

smallest authority for this absurd doctrine. On the contrary, he evidently entertained the highest idea of the perfect purity of the menstrual blood, by comparing it with that which flows from a victim. And, indeed, when we consider, among other things, the purpose for which it is apparently designed in time of pregnancy, we cannot avoid concluding it to be of a soft, mild, and balsamic nature; otherwise, it would certainly make a very improper nourishment for the fœtus.

Great controversies have arisen among authors, concerning the local origin of the monthly discharge; some contending that it proceeds from the vagina as well as the uterus, while others ascribe it to the former only. This singularity of opinion seems to have been occasioned by an appearance of the *menfes* in some women during the first months of pregnancy. The fact cannot be contradicted; but yet it needs not appear very surprising. The
fœtus,

fœtus, at this time, is too small to consume the whole quantity of blood that used to pass by the uterus; in consequence of which, especially if the woman be naturally of a plethoric habit, a redundancy will ensue. The superfluous portion must be discharged by some outlet or other; and therefore, as it cannot find a way through its ordinary channel, whose vessels are now sealed up by the adhesion of the placenta, it is highly probable, from the contiguous situation of the vagina, that the opening will be made at this part. Such a circumstance, however, being the consequence of a violent effort only, and happening but in a few rare and uncommon instances, can never be successfully urged, to invalidate those conclusions which have been repeatedly deduced from the more steady and ordinary course of nature. Besides observations made on subjects who have died with the discharge upon them, a variety of other considerations

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tions renders it much more probable, that the menstrual flux, in a natural state, proceeds from the uterus, and not from the vagina. The texture of the uterus is thick, soft, and vascular, and consequently, better adapted to a secretory office, than the thin, firm, and membranous substance of the vagina. The uterus, besides, from the first moment of conception to the hour of birth, being the natural habitation of the foetus, whose nourishment appears, by the most irrefragable evidence, to depend upon the menstrual blood alone, it is more analogous to the wise conduct of nature in all her other operations, that the evacuation should be made at that part, where only it can be subservient to its original intention.

CHAP.

C H A P. II.

*Of an Obstruction or Suppression of the
MENSES, and of the CHLOROSIS.*

THOUGH various opinions have been entertained by physicians concerning the cause of the menstrual flux in women, the utility of that evacuation hath ever been universally acknowledged, and it is one of the most established axioms in physic, that the greatest part of female diseases are the consequence of obstructed *catamenia*.

The time when this evacuation commences is generally about the age of fourteen, and its total cessation betwixt forty-five and fifty. During which period it is natural to all women who do not give suck, nor are pregnant, and sometimes to those who are so till about the third month of gestation, or even longer, when the foetus having attained such a size as
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to consume the redundant blood of the mother, the usual evacuation is suspended.

The pre-disposing causes of obstructions of the *menfes* may be reduced to two general classes, *viz.* 1. the state of the fluids, and 2. that of the solids. I shall first consider the former.

I. The circumstances under which the fluids prove unfavourable to this evacuation are, when the blood is endowed with too great thickness, or when it either exceeds or is deficient in the quantity which is proportioned to the constitution of the person.

1. When the blood is of too thick a consistence it must of necessity move more slowly through the small vessels; the consequence of which will be, that it must also have less *momentum*, and therefore the extremities of the uterine vessels will not be sufficiently dilated to allow a passage to the menstrual discharge. To this may be added

added, that the blood stagnating through its own viscosity and the weakness of the force with which it is impelled, will be apt to adhere in some degree to the extremities of the vessels, and thereby render their orifices more impermeable.

2. Though the existence of a greater quantity of blood than is necessary for the purposes of the animal œconomy, seems requisite for producing the menstrual evacuation, yet an accumulation too much beyond that degree is so far from being favourable to the discharge, that it frequently suppresses it. When the quantity of blood in the body is too great in proportion to the moving powers, the circulation becomes more languid, and hence not only the orifices of the small vessels are opened with greater difficulty, but the blood is also disposed to become more viscid.

3. If the quantity of blood falls below the standard which is requisite for the right

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performance of the several functions, the vessels will not be sufficiently distended, nor the force of the circulation strong enough to promote a discharge, which is then neither necessary, nor compatible with the circumstances of the constitution.

II. The state of the solids may obstruct the menstrual evacuation, when, though the blood exists in sufficient quantity, and is impelled with a *momentum* that would be capable of overcoming the resistance to that discharge in ordinary circumstances, yet the orifices of the uterine vessels are so much contracted as not to admit of that effect: and this rigid state of the vessels of the uterus is the cause of that pain which young girls, not accustomed to the menstrual evacuation, feel at its first approach.

The first symptoms that appear upon an obstruction of the *menfes* are a pain and heat of the loins and adjacent parts, which are felt more particularly when any of the occasional causes of the disease have happened

pened to exert their influence about the natural time of the evacuation, and thereby hinder the discharge of the blood which had been accumulated for that purpose. The patient is also commonly affected with a head-ach and a troublesome pulsation of the arteries, while hæmorrhages often ensue from various parts. She has usually a loathing of food, or her appetite is whimsical and depraved, entertaining a strong desire of eating the most insipid and sometimes even excrementitious substances. This odd symptom is denominated *pica* or *malacia*. She has likewise a listlessness and languor, with frequent shiverings and a quick and low pulse, indicating a slight degree of fever, though sometimes the pulse is strong. The urine is thick and red, but small in quantity. The eyes appear dull and sunk. She is troubled with a difficulty of respiration, which is frequently interrupted by a cough. Sometimes there is a florid colour in

the face, and the veins are varicose. The sick is greatly disposed to watchfulness, and complains often of a vertigo and palpitation of the heart. She is much subject to a nausea and lowness of spirits; falling likewise frequently into fainting and hysteric fits, sometimes into an apoplexy, or, but what more rarely happens, into a *mania*. In women of a lax and corpulent habit arthritic complaints are sometimes observed to supervene. When the vessels of the uterus are rigid, and the constitution sanguine, an inflammation of that organ sometimes happens, terminating often in a schirrous or cancerous hardness, if not in a suppuration or gangrene. Few women whose *menses* are long obstructed escape the *fluor albus*, and many of them fall into the *chlorosis*.

The various symptoms and disorders, consequent to obstructed *catamenia*, are to be attributed to that general oppression of the several functions produced by a redundancy

dundancy of blood, whence the solids are so much relaxed, and the fluids so vitiated, as to be productive of many morbid alterations in the animal œconomy.

It is sometimes difficult to distinguish an obstruction of the *menfes* from pregnancy, though the point may generally be determined by observing the complexion, which in the former case for the most part appears sickly. In an obstruction of the *menfes* likewise, no motion is felt in the uterus, nor do the symptoms disappear about the third month, as generally happens in pregnancy, when the fœtus having increased to such a size as to consume the blood which was wont to pass by the menstrual evacuation, the mother is at length relieved from those complaints which had arisen from a diminution or total suppression of that discharge. A physician, however, who is attentive to his reputation, ought to be cautious in not delivering his opinion too precipitately concerning

cerning the matter in question: for it is impossible, at a very early period, to determine with absolute certainty whether the symptoms proceed from an obstruction of the *menses* or pregnancy, and an erroneous diagnostic in such a case may expose him to censure.

When obstructions of the *menses* are recent, they may be restored without much difficulty; but if the evacuation has been long suppressed, there is scarcely a case in physic more obstinate. The cure is also easier when the disorder proceeds from a plethora, than when it is owing to a visciditv of the humours, or a constriction of the uterine vessels. It is commonly observed that fat women, and those who use much exercise, are less exposed to injurious consequences from obstructions, than such as are of the opposite constitution, and who use a different manner of life. When the suppression of the *menses* has produced a great degree of cachexy,

cachexy, if the disorder is not speedily remedied, it generally terminates either in a fatal dropfy or consumption.

There is no disease in which the indications of cure are more various, or where greater precision is necessary in forming a judgment of the cause, than in menstrual obstructions. For medicines which are proper in one case, may prove ineffectual or even hurtful in another. On this account, it will be expedient to take a more particular view of those obstructions, and to consider the methods of cure most suitable to the different causes upon which they depend.

When a stoppage of the monthly evacuation is owing to a deficiency of blood, which may be known from tedious diseases or profuse evacuations having preceded, the best emmenagogues are those medicines which strengthen digestion, such as the bark, bitters, and steel, with a

nourishing diet and proper exercise. When by these means the patient's habit of body is restored, and she has attained such a quantity of good blood as to furnish matter for the natural discharge, the evacuation may return of its own accord: but if it should not appear within the space of a menstrual period, the blood ought to be determined to the uterus by frequent doses of *tinctura sacra*, or other aloetic medicines; during the use of which, the patient ought to sit for some minutes every evening over the steams of warm water, which, in order to have the greater effect, may be conveyed into the vagina by means of a funnel. Tepid vapours, when thus applied, relax the uterine vessels, and make them yield more easily to the discharge.

If, as frequently happens, a plethora or too great an abundance of blood be the cause of menstrual obstructions, the indications of cure are to diminish its quantity by bleeding, and gentle purgatives. For
while

while the vessels are over-loaded, not only their action becomes too feeble to propel the blood with sufficient force through the small ramifications, but also the lateral pressure thence arising, to which the uterus is particularly exposed, from its intricate texture, must prove extremely unfavourable to the evacuation from that part.

Physicians have differed in opinion concerning the veins in which bleeding may in this case be performed with the greatest advantage; but it is now become the established practice to perform it in the lower extremities, where the veins of the foot or ankle are generally fixed upon for the purpose.

Bleeding in these veins tends greatly to facilitate the eruption of the *menses*, by increasing the velocity of the blood in all the branches of the descending *aorta*. In plethoric women, however, it may sometimes be proper to draw some blood from the arm, as Riverius observes, previous to bleed-

bleeding in the foot, in order to relieve the uterus, when a pain and tension are felt about that part, after which venæsection in the foot will prove much more effectual.

Some have imagined bleeding to be most advantageous when it is performed about the period at which the *menfes* used naturally to flow; and, if the obstruction is recent, such a method is undoubtedly the most adviseable: but if the complaint is of longer standing than two months, it is of no consequence at what period we have recourse to the operation. For the return of the *menfes* is not regulated by the stated revolutions of time, but by the accumulation of a proper quantity of blood; and they will therefore begin again to flow whenever the quantity is reduced to such a standard, provided there exists no other cause which may impede the evacuation.

After bleeding, cathartics ought to be administered, in order to promote the discharge;

discharge; and of these the aloetic kind appears the most suitable. I have often prescribed two ounces, or even somewhat more, of the *tinctura sacra*, to be taken in the morning, with great success. Some have in this case advised drastic purgatives as the most efficacious; but I have never experienced them to be of any superior advantage, particularly in delicate women, and have frequently found them to excite hysterical symptoms by their strong irritation. The purgatives may also be taken at night, in small doses, and continued for some time; in which manner I have often ordered the *pilulæ rufæ*, sometimes joining two or three grains of calomel every second or third night, the more effectually to remove the obstruction of the uterine canals; or in place of these, I have given the *pilulæ mercuriales laxantes*.

In sanguine constitutions, however, or where the obstruction of the *menses* seemed to be owing to a distension of the
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hæmorrhoidal veins, infusions of senna or rhubarb have answered better than aloetic medicines.

In women who are hysterical, laxative clysters, charged with anti-hysterical medicines, are preferable to the other method of evacuation; as are also emetics frequently repeated: though in few cases ought we to give any stronger than ipecacuan.

The use both of purgative and emetic medicines in obstructions of the *menses*, is to excite contractions in the stomach and intestines, thence to be propagated to the uterus, which organ will also be forcibly agitated by the convulsive motion of the diaphragm and muscles of the *abdomen*, in the action of vomiting. For the same reason sternutatories also prove sometimes beneficial in opening obstructions of the *menses*.

During this course, the patient should take twice a day a tea spoonful of the
tinctura

tinctura belleb. nig. out of some emmenagogic infusion. This medicine was much recommended by Dr. Mead, and I have often found it successful, particularly in young girls who had a difficulty in their first menstruation. The other most approved medicines in this case are the fœtid and resinous gums, of which the dispensaries abound with various compositions.

Obstructions of the *menfes* in women of a lax and cachectic constitution are to be cured by a very different method of treatment from that which is proper in those who are strong or plethoric. For while in the latter the retention of the flux is caused either by a redundancy of blood or a constriction of the vessels of the uterus, it is occasioned in the former by a defect or visciduity of the fluids, and a weakness of the vascular system. In such cases, therefore, the indications of cure are not to diminish, but increase the quantity of the globular part of the blood,
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and by strengthening the whole body to render the circulation more brisk. Here, then, we must entirely refrain from bleeding, and have recourse to chalybeate medicines, which are justly esteemed the most sovereign remedies in all disorders arising from relaxation.

When the pulse was low, and the constitution cachectic, I have generally prescribed chalybeates along with stomachic medicines, without any mixture of emmenagogues. For, as in these cases the obstruction of the *menses* depended not upon any partial cause, the most effectual means of recalling the evacuation seemed to be to alter the whole habit of body, which was best performed by the use of chalybeate medicines. Nevertheless, where the vessels require to be cleared, as is often the case in leucophlegmatic habits, the addition of emmenagogues may prove successful at the beginning of the cure, by facilitating the effect of the other remedies.

Beside

Beside internal remedies, topical applications are of great advantage in removing a stoppage of the *menses*, especially when it proceeds from a constriction of the vessels of the uterus. In such cases I have found nothing so effectual as vomiting in the *semicupium*, or warm bath, where the patient was placed with her legs in an horizontal situation, and the water reached to about her navel. The success of this method is sometimes so immediate, that the patient has been sensible of it in the very bath. At any rate, the repetition of it once or twice a week, during the use of other remedies, seldom fails of recalling the flux in a short time.

If we consider the manner in which this method operates, no expedient whatever can appear more advantageous for the purpose. For while, by the action of vomiting, the fluids are propelled with greater force, they are also directed in a particular manner towards the uterus, by
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the relaxing quality of the warm bath. Thus the bad consequences, which some have apprehended from the common method of vomiting in menstrual obstructions, may not only be prevented, but its operation may be rendered highly salutary in the cure of those complaints. I have also frequently prescribed this manner of vomiting in other cases, where, though the situation of the stomach indicated an emetic, there nevertheless were inconveniences to be dreaded from the greater quantity of blood which would necessarily be sent to the head by its action, if not prevented by such a derivation as might counteract that effect.

Emollient fomentations, applied warm to the hypogastric region, have also their advantage in deriving the blood to the uterus. Or flannel, wrung out of the decoction, may be applied in the same manner, and renewed as soon as it is cold.

For

For the same purpose the vapour of warm water, or of an emollient decoction, as mentioned above, received into the vagina, and used for half an hour at a time, is highly advantageous. Care, however, must be taken in that case, that the vapour be not too hot.

When an obstruction or suppression of the *menfes* is owing to a spasmodic constriction of the uterine vessels, proceeding from cold, any violent passion of the mind, or other causes, next to the *semicupium*, the chief external remedy is bathing the feet in warm water, which ought to be frequently repeated. In this case oily draughts, taken in such doses as the stomach can bear, are likewise extremely serviceable in removing the spasm; as are also clysters of warm water, with thirty or forty drops of laudanum.

We are furnished with some instances of obstinate menstrual obstructions being

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cured

cured by electrifying, and drawing the sparks chiefly from the thighs. Of this method of cure, however, I have never had any experience: but from the observations of those who have tried it, it succeeded best where the pulse was weak and languid.

Young women, in whom the vessels of the uterus are tense, are exposed, about the return of the *menses*, to violent pains of the back and belly, faintings, delirium, and sometimes even convulsions. In these circumstances the *semicupium* is of remarkable advantage; or where that cannot readily be procured, a clyster of warm water, with forty or fifty drops of laudanum, and a flannel bag of emollient herbs, wrung out of warm water, and applied to the *abdomen*, may be substituted in its room. When the patient is costive, a laxative clyster with *assa fætida* should be administered, in order to procure a stool, previous to the injection of the anodyne.

For

For preventing the above-mentioned complaints at the approach of the menstrual flux, bathing the feet frequently in warm water, during the intervals of that evacuation, with some doses of the *pilulæ rufæ* and oily draughts, is attended with good effects; and the same method is beneficial in the cure of those pains which follow upon the cessation of the flux.

Faintings and convulsive fits sometimes likewise succeed every period of the *menses*, when the discharge has been less copious than usual. In such cases a little blood ought to be drawn from the arm, and a course of such medicines prescribed as have been recommended in obstructions, along with a frequent use of the *pediluvia*.

Among the mechanical methods of promoting the *menses*, the application of cupping-glasses to the haunches and thighs, and frictions of the lower extremities, are frequently used with good effect, by their

tendency to accelerate the motion of the blood in the vessels of the uterus.

It deserves to be remarked, that clysters, purges, vomits, and all the other methods of derivation which have been mentioned, are always used with the greatest advantage when the blood is accumulated in the uterus for the menstrual evacuation, and nothing more is required than to stimulate that organ to the discharge. But they are also extremely beneficial where the blood is endowed with any degree of viscosity, if used in the intervals; since by exciting a brisker motion in the vessels of the uterus, they serve to dislodge, or prevent, such grumous collections of the fluids as might obstruct or retard the evacuation.

In all obstructions of the *menfes*, moderate exercise is highly advantageous, especially when used about the return of the periods; and in particular, I have observed

served frequent dancing attended with good effect.

When all our endeavours to recal the menstrual flux have proved ineffectual, a palliative cure is only what can be advised; and for that purpose a vein ought to be opened once a month, to supply the place of the natural evacuation.

Of the CHLOROSIS.

OBSTRUCTIONS of the *menfes* are frequently productive of a particular species of cachexy, known by the various names of *chlorosis*, *febris alba*, *febris amatoria*, *morbus virgineus*, *icterus albus*, or *green sickness*.

In this disorder the face is generally of a pale and greenish colour, sometimes livid or yellow, and frequently inflated; which last symptom is most observable in the eye-lids, especially after sleep. These parts are likewise of a livid cast; the eyes

appear hollow, and the lips unusually pale. A tension and weight are felt in the loins and extremities, the feet are often cold, and, together with the parts about the ancles, generally swell and pit towards night. The appetite is commonly either weak, or whimsical and depraved; the patients often desiring to eat of lime, chalk, coals, cinders, and such like unwholesome and indigestible substances. There are also frequent heart-burns, and sometimes a *nausea* and vomiting. A head-ach likewise often intervenes; and a difficulty of breathing, with a palpitation of the heart, is felt upon any brisk motion. An indolence and lassitude are complained of. The pulse in general is quick and low, betraying a small degree of feverishness. All these symptoms discover an universal relaxation of the solids, and a vitiated crasis of the blood.

This disease sometimes seizes children of eight or nine years of age, but most commonly

commonly those about thirteen or fourteen, and is generally terminated by the eruption of the *menfes*. Where the constitution is not extremely weak, it is seldom attended with much danger, or long resists the use of proper medicines. But if it should be neglected, and especially, as often happens, be joined with the *fluor albus*, it may in time prove fatal by producing obstructions in the bowels. I have known some cases where consumptions of the lungs have followed from an high degree of the chlorotic cachexy, when a natural disposition to an hæmoptoe would not admit of an effectual method of cure.

Various causes have been assigned for the production of this disorder, of which the most general is an obstruction of the menstrual discharge, or an alteration made on the fluids about the time when that evacuation begins. It has likewise been thought that it may proceed from a longing desire after some particular person, or

the exchange of a single for a connubial state; but when the disease appears under the circumstance last mentioned, there is reason to suspect that it is the consequence of the *fluor albus*.

The judicious Hoffman reckons the *chlorosis* entirely a species of cachexy, induced by a relaxed habit of body, and a diminution of the digestions and discharges. And, indeed, as the disease is sometimes incident to young girls who are several years below the age of menstruation, it would appear that it may be owing to other causes than the stoppage of that flux, to which it has been so generally attributed. A suppression of the monthly discharge can only be supposed to affect the constitution by producing a redundancy of blood, whereby the vessels must be too much distended, and consequently relaxed. In such a state of the body, neither the organs of digestion can act with sufficient force on the aliments,
nor

nor the crude and imperfect chyle be duly elaborated, in the subsequent process of sanguification, by a vascular system endowed with equal debility. The consequence of such a defect of digestion must be a general increase of weakness, whence the fluids will be moved with less velocity, and the secretions and excretions diminished. For these reasons the impure humours, which ought to be discharged, will be retained in the body, and a ferous cachexy will ensue.

From this view of the manner in which the *chlorosis* may be produced by a suppression of the *menfes*, it is obvious that it may also be occasioned by any other cause which has a tendency to relax the constitution in an equal degree. Among these may be reckoned a luxurious and inactive life, a moist atmosphere, and great anxiety of mind.

That the use of a plentiful diet, with too little exercise, may be the cause of
cachectic

cachectic disorders, is confirmed by daily experience, and was observed so long ago as by Aretæus. When more food is received into the stomach than it is capable of digesting, a vitiated chyle is produced, which can never afterwards be converted into good blood; while, by a defect of exercise, the excretions are also diminished, and the vessels are loaded with impurities.

In a moist atmosphere the fibres are relaxed, and the perspiration lessened, whence likewise arises such an accumulation of humours as forms our idea of a cachectic constitution.

Nothing relaxes the body more than long continued anxiety of mind, which, by causing indigestion in the stomach, and diminishing the force of the circulation, produces impurities in the blood.

As the proximate cause of the *chlorosis*, therefore, appears to be a cachectic state of the fluids, induced by a defect of the
di-

digestions or natural discharges, the intentions of cure are to evacuate the gross humours, and prevent their regeneration by strengthening the whole body.

If the *chlorosis* be in its infancy, and has arisen from a stoppage of the menstrual flux, bleeding to the quantity of six or eight ounces is proper at the beginning of the cure, to abate the distension of the vascular system, and facilitate the performance of the several functions depending upon a free circulation. But if the above-mentioned circumstances do not exist, or the patient be weak, venæsection would prove detrimental.

At whatever stage of the disease the cure is begun, it is necessary to exhibit a gentle emetic, to discharge the viscid and acid humours which have been generated in the stomach by a weakness of digestion, and of the existence of which, in this disease, the general state of the fluids,

as well as the depraved appetite, affords sufficient testimony.

After a vomit purgatives are to be administered, both to cleanse the alimentary canal, and drain off the phlegmatic humours by the intestinal glands. For this purpose the warmer and aloetic purges are most suitable. To answer the first intention, namely, of cleansing the alimentary canal, they may be properly exhibited once or twice in a full dose; after which, the method of administering them as alteratives is most successful; as when given in such a manner, they both prepare the viscid humours for being discharged, and evacuate them without weakening the patient. Fifteen grains of *pilulæ rufi*, or a table spoonful of *tinctura sacra*, taken at bed-time, prove extremely beneficial; as does likewise the *elixir proprietatis*, used in the same manner, in the quantity of thirty drops. I have sometimes given four or five grains of calomel made into
a pill

a pill with conserve of roses alternately with those aloetic medicines, with remarkable benefit; or instead of them the following composition, which, when the fluids are viscid, and the glands much obstructed, is an excellent deobstruent, and slow purge.

R Aloes socotrin. drachmas duas.

Gum. ammoniac.

Myrrh.

Extract. hellebor. nig. ana drachmam unam.

Syr. commun. q. s. ut fiat massa pilularis formand. in pil. gr. V.

Capiat IV. omni nocte hora somni.

Either along with these alterative medicines, if the patient is not plethoric, or otherwise after the quantity of humours has been diminished by their operation, chalybeate remedies are to be administered, which, in all cachectic disorders, are of admirable efficacy, not only by attenuating the gross fluids, and opening all ob-

obstructions of the vessels, but also by strengthening the whole body. Invigorating the fibres, and giving thereby a greater force to the circulation, they promote both the digestions and discharges, and so purify the blood from such humours as had been accumulated by a defect of the natural functions. Chalybeates deserve justly to be esteemed as the most indispensable remedies in the cure of the *chlorosis*, and to the operation of which all other medicines are to be considered in a manner as only preparative. I have often prescribed them successfully in the subsequent form.

R Limatur. ferri semunciam.

Conserv. absynth. roman. fescunciam.

Ol. cinnamon. guttas tres.

Syr. caryophyllorum. q. s. fiat electuarium, cujus capiat ægra quantitatem nucis moschat. bis in die, superbibendo vini sequentis cochlear. quatuor.

R Rad.

R Rad. gentian.

Zedoar. ana drachmas sex.

Cort. aurantior. unciam unam.

Summitat. centaur. min. drachmas
duas.

Vini Lisbonensis lib. duas. Digere
per quatrimum, et cola.

To delicate women, instead of the electuary, I have given, with equal advantage, the *vinum chalybeatum*, mixed with the above stomachic tincture, in the proportion of one part to three.

During the use of steel medicines proper exercise ought to be enjoined: and if they have not been entered upon till the course of the alterative purgatives is concluded, and the patient is costive, a gentle laxative, such as an infusion of rhubarb and manna, should be interposed every third or fourth day.

By these remedies I have generally found the habit of body altered in a very
short

short time; when, if the patients were of an age at which menstruation ought to be regularly performed, and the flux did not appear soon after, I advised a continuance in the same course for a few weeks longer; either joining the chalybeate and other alterative medicines together in various forms, as was most agreeable to the taste of the patient, or prescribing each to be taken alternately for a week at a time.

Beside the filings of iron, or its several preparations, the natural spaw waters, which contain a chalybeate principle, are of great efficacy in the cure of a *chlorosis*, when the disease has proved obstinate.

I have known four instances, within these few years, of young girls, two of whom were about fourteen years of age, and the other two from sixteen to eighteen or nineteen, in whom the *menfes* were deficient, who were cured of a
4 chlorotic

chlorotic complaint by drinking sea-water; only one of them had used bathing at the same time. I have also known some cases of similar success from the drinking of other waters, which were not impregnated with a chalybeate, but a saline or sulphureous principle. In all these instances, the blood was depurated by an increase of the natural discharges, while, by means of proper exercise and diet, the patients recovered their former strength, and the cure was completed.

Upon the same principle an infusion of the woods in lime-water, with, or without the addition of a little tincture of steel, has been found to be serviceable. But before the use of such a course the *primæ viæ* ought to be cleansed, and the grosser parts of the viscid fluids evacuated by the use of purgative medicines.

When the disease has proved obstinate, I have often observed good effects from

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joining

joining the Peruvian bark with steel and the warmer stomachic medicines.

The cold bath has been recommended in obstinate chlorotic cases; but it ought not to be advised before the exhibition of purgative medicines, especially when the patient is plethoric. I have found it most advantageous when it was had recourse to after the use of inward strengthening remedies, or alternately with them.

When the *chlorosis* proceeds from an obstruction of the *menfes*, the entering into a conjugal state is commonly found to effect a cure, even without the assistance of medicines.

The only symptom in this disease which requires any particular palliative treatment, independent of the general indications, is the tumour of the feet and parts about the ancles, which is usually accompanied with a coldness. To remedy these complaints, the parts affected should

should be rubbed every night with a warm towel, and a linen bandage be rolled pretty tight round the leg, to compensate for the relaxation of the fibres, and make the fluids return more briskly to the heart.

As the green sickness is attended with a relaxed state of the solids and a deficiency of perspiration, a warm and dry air is of considerable advantage in the cure, which on that account I have generally found to be sooner completed in the summer and autumn than in the winter and spring.

A particular attention to diet is here likewise necessary, since without the assistance of proper aliments neither the bad state of the fluids can be soon corrected, nor the strength restored. Flesh of easy digestion and agreeably seasoned with spices, is therefore the most proper kind of food; which ought also to be

taken in a moderate quantity; for nothing is more prejudicial in all diseases depending on a crude state of the fluids than too great repletion, as by preventing the concoction of the aliments it not only increases the load of humours, but disposes to farther relaxation. All acids ought particularly to be avoided. Wine and water for drink are preferable to malt liquors. Frequent moderate exercise, especially riding on horse-back, is highly advantageous, and ought to be diligently persisted in, notwithstanding the uneasiness it occasions when the disease is far advanced. The sleep should be moderate, and the desponding passions of the mind carefully avoided.

C H A P. III.

Of the immoderate Flux of the MENSES.

THOUGH the menstrual discharge is appointed by nature for the safety and preservation of the sex, yet this salutary function is liable to so great irregularities, from a variety of different causes, that it often proves the source of their greatest disorders. It may err, either by its excess, diminution, or total suppression. These different irregularities producing some disorders in common, and others peculiar to each, demand the most careful attention, to prevent the many bad consequences by which they are so frequently succeeded. The former, however, seems, in a particular manner, an object of the most serious consideration; the uterine hæmorrhage being sometimes so impetuous in its attack, and violent in its effects, as to destroy the

patient before the proper remedies can be administered ; or, if she escapes with life, it commonly leaves her so weak and exhausted, that she generally sinks into some chronic disease, which always renders the remainder of her days uncomfortable, and at length wears her out.

The flux is immoderate, either when the periods return too often, continue too long, or too much blood is discharged at one time. But as these circumstances may be variously united, there may, likewise, be various degrees of the disease, increasing gradually, according to the several accidental combinations, from the most simple appearance produced by an error in any one of them singly, to the highest and most complicated state which can result from the joint operation of the whole.

To obviate every possible mistake, however, some care will be necessary, as it is not always easy to determine with exact-

exactness, what ought to be called *an immoderate flux*. In some women, the same quantity may merit that appellation, and constitute a real state of disease, which, in others, would amount to no more than what is purely natural, and perfectly consistent with health; and therefore every proper allowance ought always to be made for the age, temperament, and other particular circumstances, which are commonly found to create so specific a difference in the female habit. A warm climate, a youthful sanguine constitution, a plentiful diet, with an easy and inactive life, will, each of them, separately, augment the quantity of the discharge, as well as promote the frequency and prolongation of the periods; but, if they happen either partially or totally to be combined together, their effects will be always increased in a suitable proportion. In such cases, more plentiful evacuations than common ought

not to be regarded as morbid; on the contrary, the welfare of the constitution absolutely requires them, and an imprudent attempt to diminish them has often been attended with fatal consequences. But farther, even in the same individual, the flux will frequently prove much greater than ordinary, without any prejudice to the patient, on account of a previous menstrual obstruction, or some other temporary and accidental cause, which may produce a plethoric state. Hence, therefore, every increase of the discharge, above the common standard, is not to be accounted a disease. It only deserves that name, when it is inordinately violent and profuse, or otherwise accompanied with symptoms which prognosticate danger. For the effect, not the measure of the evacuation, is generally the surest criterion by which to judge.

As every other hæmorrhage, of the spontaneous kind, is generally preceded
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by some particular signs, which shew the blood to be more copiously and forcibly determined to that part from whence the eruption is afterwards to proceed, than to any other, so likewise the uterine flux of women is always indicated by its peculiar symptoms. Before a bleeding at the nose, there are constantly a distension and strong pulsation of the carotid and temporal arteries, an uncommon heat and flushing of the whole countenance, particularly of the nostrils, with an itching of that part. In people subject to an *hæmoptoe*, a sense of oppression, heat, weight, and pain, at the *præcordia*, difficulty of breathing, and a tickling cough, attended with a slight degree of hoarseness, are the common forerunners of a discharge from the lungs. In like manner, from a perception of dull heavy pains in the loins, and parts adjacent to the uterus, together with head-achs, and other particular symptoms, the sex are generally

generally premonished of their approaching evacuations.

When the uterine discharge is moderate, every symptom of uneasiness vanishes with it, and the woman enjoys her former state of health, till the return of the next period renews the same complaints. But, on the contrary, if the flux be more profuse, and, as frequently happens, greatly exceeds the quantity which is natural to the constitution, it commonly leaves the patient low, feeble, and exhausted; and several repeated attacks of the same kind will not only increase these symptoms of debility, but likewise induce a variety of others, which often prove obstinate in their nature, and sometimes unfavourable in their event.

The same bad consequences will likewise result, either from a too frequent return, or long continuance of the discharge, though the quantity of blood,
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evacuated in a given time, should not be considerably increased.

The most common symptoms, arising from these irregularities of the menstrual evacuation, are the following.

First, as hath been said, there is a sense of languor, weakness, and a lowness of spirits. These complaints are daily increased, and a series of others continually succeeds. The alimentary canal is soon affected, the appetite decays, and the digestion becomes imperfect. For these reasons, joined to the frequent loss of blood, the whole body is extenuated, and the countenance, in particular, is pale and emaciated. The action of the heart, likewise, as well as that of the whole vascular system, being much impaired, the circulation in general becomes extremely languid: from whence proceed a small and weak pulse, coldness of the extremities, and frequently an œdematous swelling of the feet and legs. The relaxation

laxation becomes more and more general; and fixt pains in the back and lumbar region, a *fluor albus*, with a train of hysterical symptoms, such as convulsive motions and faintings, proceeding from the irritation of coagulated blood in the uterus, are frequent concomitants of the disease. In short, the whole system by degrees feels its effects, till at length, ananasarca, ascites, hectic fever, and atrophy, prove the melancholy harbingers of approaching fate.

It is unnecessary to enter into any theoretical explanation of these symptoms, as the whole appear chiefly to depend on a diminution, or impoverished state, of the blood, and a relaxed condition of the solids.

The effects abovementioned are what commonly proceed from an immoderate uterine hæmorrhage, after it has continued to molest the patient for a long course of time. Instances, however, have occurred,

occurred, though happily but few, wherein the discharge has proved so very violent and excessive as speedily to terminate in the extinction of life. In such cases, a number of alarming symptoms are suddenly produced. The face looks pale and ghastly, the body is bedewed with cold and clammy sweats, the extremities grow cold; hiccup, tremors, and *subfultus tendinum* supervene; the pulse becomes small, weak, and fluttering; and, lastly, a syncope succeeds, in which the exhausted patient sometimes expires; because the remaining blood is no longer able to stimulate the heart, or move the springs of life.

The diagnostic signs of this disease are few and obvious, and may be easily collected from the above description. Few women are so inexperienced as not to know when their evacuations exceed the natural limits; and the physician can never be at a loss to determine, if he finds the discharge accompanied with an
unusual

unusual paleness of the face, and universal debility, together with more or less of the other symptoms which have been enumerated; especially, if he also takes into the account, the constitution, age, and other circumstances of his patient. It has been observed, that every evacuation greater than ordinary is not properly to be reckoned a disease; as some women have naturally more copious discharges than others, and the quantity may sometimes be increased in the same woman, from particular causes, without producing any inconvenience. In either of these respects, it might be dangerous to interfere by prescriptions for lessening the quantity of the flux. And, therefore, to determine the nature of particular cases, the symptoms, and other circumstances of the patient, are chiefly to be attended to; as, otherwise the diagnostics, if taken from the quantity of the blood alone, might often prove very fallacious.

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In general, women of a soft and delicate constitution, and such as live too much on a thin and watery diet, are more subject to a preternatural discharge of blood from the uterus, than those who are more robust, or who use more solid aliments. Those likewise, who are exposed to hard labour, and such as requires violent straining, or great exertions of the strength, are extremely liable to this disease. Sometimes, also, its invasion is greatly determined by the particular period of life. It has seldom been observed in young girls before the ordinary time of menstruation, though maids arrived at greater maturity have sometimes been seized with it. Women who have born children, are much more subject to it than those who have never been mothers, on account of the great relaxation brought on the uterine vessels, either in consequence of pregnancy or laborious births. But, of all women, none are more liable to profuse uterine hæmorrhages than those
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in the decline of life, or about that time when their *menfes* are ready to forsake them. Nor is the reason of this difficult to explain. From changes natural to the human frame, the wonted periods are now become less frequent and regular than formerly; and hence it often happens, that the blood is greatly accumulated, after one discharge is over, before another succeeds. In such a case, when the new hæmorrhage begins, it will not only be in proportion to the preceding plethora, but, likewise, it will frequently continue much longer than is necessary for taking off that load; as the uterine vessels, having now lost much of their elastic tone, may not always be able to contract themselves sufficiently, when the superfluous quantity is exhausted. Hence, then, it seems natural, that the floodings of old women must often prove more critical than those of younger subjects; because, in the latter, the contractile power of the solids will frequently, of itself, either

either put a stop to the discharge, or, at least, facilitate the operation of medicines in producing that effect.

As the uterine flux, in its natural state, depends on a due equilibrium between the *momentum* of the blood, and the resisting force of the solids, it follows that every accident, which destroys that proportion, must necessarily vary the quantity of the discharge, by occasioning more profuse evacuations, partial obstructions, or entire suppression, according to the nature of the particular cause, and its relation to any of these effects. The discharge is increased, in general, by a preternatural determination of the blood to the uterus, or an unusual relaxation of the vessels of that organ; and, in proportion to the degree of these different circumstances, will it always be more or less violent. Such a determination of the blood may be excited, either by a plethora, or too great a degree of irritability, especially

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cially of the uterus itself; as this will produce all the effects of a plethora, by increasing the force of the circulation in that part. Hence, therefore, the immediate causes of an immoderate uterine hæmorrhage may be reduced to these three, *viz.*

1. A plethora.

2. Too great a degree of irritability, especially of the uterus.

3. A preternatural relaxation of the vessels of that organ, or of those of the whole body.

Some have added a fourth, namely, a dissolved state of the blood, either with, or without, acrimony. There is no doubt, indeed, when the cohesion of its globular particles is destroyed, but the blood will flow much more freely through the relaxed vessels of the uterus than in its more compacted state; and, if acrimony be likewise joined, its motion will necessarily

rily be accelerated, on account of the additional *momentum* thereby impressed. Acrimony, however, is always owing to its particular causes, whether it be of the arthritic, venereal, or scorbutic kind, &c. But a simple tenuity, or thinness of the blood, is generally the consequence of a weak and relaxed state of the solids only: and, therefore, when these are restored to their due tone and vigour, so as to act with sufficient force on the circulating fluid, that soon recovers its natural density. A dissolution of the blood, then, being so closely connected with the last of the three causes above mentioned, seems not to require any particular attention: for, except in the case of difficult labours, the *fluor albus*, or any accidental injuries of the uterus, a relaxation of its vessels is seldom found to exist alone, in any considerable degree, independent of a more general debility.

No great illustration is wanted, to shew in what manner these several causes may contribute to produce an immoderate hæmorrhage. Plethora acts by exciting an universal distension of the vascular system, in which the vessels of the uterus, from the situation and particular structure of that organ, must bear a considerable proportion. Irritability increases the oscillatory motion of the vessels, and thereby quickens the circulation in general, or in particular parts. And, lastly, when the vessels of the uterus, from whatever cause, are preternaturally weakened or relaxed, they cannot make sufficient resistance to the action of the heart and arteries. Hence, by the two former, there is a more copious derivation of the blood into the body of the uterus; while, by reason of the latter, the influent current finds too easy a passage into the cavity of that organ. It is evident, therefore, that either of these circumstances, separately, may prove a sufficient cause of an increased

creased uterine hæmorrhage; but, if they happen to be more or less united, their effect will be still more remarkable.

The constitution may be naturally too plethoric, irritable, or relaxed; or these habits may be gradually acquired, and derive their origin from a variety of occasional, and more remote causes.

1. A plethora may be produced by a full and plentiful diet, a sedentary and inactive life, undisturbed tranquillity of mind, or a suppression of customary evacuations, especially of the menstrual flux; and, in a word, by every circumstance of the non-naturals, which has a tendency either to increase the quantity of the blood, or diminish that of the ordinary secretions.

2. The causes of irritability may be considered in a two-fold view, according as they affect the system in general, or the uterus in particular.

To the former class more immediately belong an hot and acrid regimen, an imprudent and continued use of too stimulating medicines, with all such diseases as are generally accompanied by a sharpness of the humours, as the scurvy, rheumatism, and gout. But, independent of any internal acrimony, proceeding either from the nature of the aliments, and other substances received into the body, or from the inherent properties of the blood itself, there are other causes, of an extrinsic and accidental kind, which may properly enough be referred to this head; as they likewise operate by a certain stimulating power, which increases the force of the circulation. Of this sort are, principally, all violent motions of the body, or perturbations of the mind. The first of these act by exciting more brisk and reiterated contractions of many different muscles, in consequence of which, the motion of the blood must necessarily be accelerated.

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And though we cannot, perhaps, so easily account for the action of the passions, yet their influence over the vital functions seems to be yet more powerful, as it is often more instantaneous. For hæmorrhages of various kinds, and other violent effects, which are the necessary consequences of a precipitated circulation, are sometimes suddenly produced by vehement fits of anger, and other passions of a tumultuous nature.

By whichever of the preceding causes the moving powers of the system are so unusually excited, as to act with additional force on the circulating fluids, the uterus must, in general, always be principally affected: its great sensibility rendering it extremely susceptible of irritation, and its soft and vascular texture subjecting it to receive such an overplus of blood, even from the slightest accidents, as will greatly increase its natural discharges.

The local causes of irritability, or such as more immediately affect the uterus with a stimulating power, are likewise various. Among these, one of the most considerable is too frequent an indulgence in venereal pleasures. Emmenagogues, also, are highly injurious in this respect; especially those of the more powerful kind; as likewise the stronger cathartics, and diuretics, which affect the uterus by sympathy with the neighbouring parts. The same effect is also produced by several diseases of the uterus, whether they are attended with erosion and the discharge of an acrid matter, or otherwise; such as inflammations, ulcers, *fluor albus*, &c. Among the causes pertaining to this class, might likewise be enumerated, moles, or false conceptions, coagulated blood and pieces of the placenta, remaining in the uterus after delivery; all which, by distending the fibres of that organ with their bulk, prove a considerable cause of irritation. But as these

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constitute special cases, which fall not within our present subject, it is sufficient only to mention them in this place.

3. Relaxation, as well as irritability, may be either general or particular. When the latter is the case, it is usually owing to the stress attending difficult labours, or some injury received in time of delivery. For the most part, however, a weakness of the uterus is chiefly produced by the influence of such causes as commonly diminish the vigour of the constitution. Hence it often succeeds all profuse evacuations, and every disease which greatly extenuates the body, and impairs the strength, either by its severity or length of duration. For the same reason, it is a frequent consequence of an abstemious regimen, or a thin and watery diet; as, likewise, of an easy, indolent, and inactive life; one of the most powerful promoters of debility, as a certain degree of exercise is always indispensibly
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necessary, to assist the process of digestion, and furnish a laudable, well concocted, and nutritious chyle. No causes, however, contribute so much to enervate the system as those which immediately affect the body with their relaxing quality; and hence proceed the pernicious effects of heat and moisture, especially when united together. On this account we find, that such disorders as depend on a weakness of the uterus are always most predominant in warm and moist situations. In Holland, particularly, where the air is extremely moist, a *fluor albus*, and profuse menstrual evacuations are frequent complaints; though the warmth of the stoves, so generally used by the women of that country, may conspire with the natural dampness of their atmosphere to relax the parts of generation. On the same principle, the warm bath, if too frequently made use of, is extremely injurious; the fluid acting, in this case, by a double sort of power. But of all the
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circumstances wherein these two causes of relaxation may concur, none is more certainly hurtful than the custom of lying too much in bed; as, by this means, the body is confined in a constant vapour bath, the most powerful of all relaxants.

In judging of the issue of an immoderate uterine flux, regard must always be had to its duration, causes, and the effects it has produced. In general, the more recent, the more easily it is cured; whereas, by a longer continuance, it occasions loss of appetite and strength, with a variety of other bad symptoms, which often prove very obstinate. The prognostic is likewise more favourable when the causes of the disease are only accidental, than when they are natural to the constitution. But when a plethora, whether natural or acquired, is the sole cause of the flux, it is seldom dangerous, though it may sometimes alarm the patient: for the evacuation generally ceases spontaneously, when

when the redundant quantity of blood is discharged. A profuse hæmorrhage, from whatever cause it proceeds, is much more dangerous than that species of the disorder commonly called the *profluvium uteri*, or a simple dripping of the organ; because, in the former, a great deal of blood may be lost in a short time: the latter, however, as proceeding from a cause of a more fixed and obstinate nature, is generally more difficult of cure. The discharges, likewise, which commonly attend the last periods of menstruation, for the reasons before assigned, have often a threatening appearance. In the last place, an attention to the effects of the disease, or the symptoms attending it, is always of the utmost consequence towards forming a just prognostic. If the strength remains pretty entire, we may flatter ourselves with hopes of success: but, on the contrary, if the patient be much weakened, and there is an appearance, more or less, of any of the bad symptoms already
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ready mentioned, the case, though not altogether desperate, is rendered far more uncertain. When the hæmorrhage is accompanied with a schirrus or cancer of the uterus, and chiefly owing to either of these morbid affections of the part, it is generally incurable.

The indications of cure, as well as the prognostics, ought to be taken from the degrees of the discharge, its several causes, and the concomitant symptoms. Hence, the first object of our consideration should be, to enquire whether the hæmorrhage be salutary or pernicious; or, in other words, whether it be natural, and consequently necessary, or truly morbid, and productive of bad effects. For by this means, we shall be able to determine with the greater accuracy, whether it ought to be permitted, partially moderated, or entirely restrained. We have before observed, some women have naturally more copious evacuations than others,

others, and that such constitutions will not only bear the excess without any injury, but their welfare even absolutely depends upon it. In such cases, therefore, to tamper with the discharge, by repulmonary methods, would be highly improper; as the redundant blood, if rashly checked at the natural place of evacuation, might either force its way by some uncommon passages, or be repelled upon the lungs, brain, or abdominal *viscera*, where it might produce obstructions, inflammations, and other fatal affections of these organs.

The danger of interfering too hastily with customary evacuations, is well illustrated by the effects of that practice, adopted by many, of bleeding at particular seasons of the year: for we find from experience, that when it has been regularly used for some time, it cannot all at once be safely laid aside. If, therefore, in a disposition to periodical evacuations,

cuations, arising only from habit, an omission of the usual practice be always liable to inconveniences, may it not well be supposed, that an undue suppression of such discharges as are naturally familiar to the constitution, will be no less productive of pernicious effects?

From hence it appears, that circumspection is often necessary in attempting the cure of the uterine hæmorrhage; which, though it may sometimes exceed in quantity, ought not always, on that account alone, to be officiously obstructed. For then only is it to be considered as a disease, when it is either so very profuse, or so frequent in its returns, as to exhaust the patient. In both these cases it ought certainly to be restrained; and for that purpose we may proceed on the following indications.

I. To diminish the flux of blood to the uterus.

II. To

II. To promote the contraction of the uterine vessels.

III. To prevent a relapse.

Our knowledge of the proximate cause suggests the most proper means of prosecuting the two first, and the third is most successfully fulfilled by a due management of the non-naturals, and by suitable precautions against other remote causes.

Though an acquaintance with the proximate cause of diseases be of the greatest consequence in directing their cure, it is not always easy to ascertain that point with sufficient precision; the knowledge of it depending on a view of so many circumstances, that some of them may often mislead us. It is only to be deduced from an attentive examination of all the antecedent and occasional causes, as well as the several concomitant symptoms; and consequently, in so complicated an inquiry, it is no great wonder if mistakes should

should sometimes be committed. In the present case, however, besides the information arising from other circumstances, there are generally certain leading marks, which greatly illustrate the nature of the proximate cause, and conduct our inquiry to the proper object. When a plethora is the proximate cause of an increased uterine hæmorrhage, it is generally pointed out by a fulness of the pulse, a turgency of all the blood vessels, and a difficulty of respiration, or other evident signs of plenitude, accompanying the discharge. In the same manner, irritability, and relaxation, as proximate causes, are commonly denoted by such peculiar symptoms as are the usual consequence of too hurried, or too languid a circulation. This, however, is chiefly to be understood of the earliest stages of the disease; for at a later period, the distinguishing characters are generally lost in the promiscuous indications of an enfeebled constitution.

In no case whatever has a regard to the proximate cause a more beneficial influence over the method of cure, than in the immoderate flux of the *menfes*; and therefore it should always be studied with the most careful attention. The genius of the disease so entirely depends upon it, that any difference, in this respect, constitutes a speciality in the complaint, which requires a different treatment. But this will more clearly appear in the further prosecution of our subject.

As motion and an erect posture must always encourage the discharge, by increasing the *momentum* of the blood, the first step to be taken, in order to diminish the flux to the uterus, is to order the patient to be put to bed, desiring her to ly in a supine posture, with her limbs extended, and strictly injoining her attendants to keep her as still and quiet as possible. She should likewise be forbid all unnecessary conversation with those about her;

her; as the efforts required in speaking, not to mention the bad effects of the watchfulness thereby occasioned, give an additional force and direction to the blood, by increasing its velocity through the lungs.

At all times, but especially in the summer season, it will be more adviseable to use a mattress than a feather bed, as the former will not only keep the loins, but also the whole body much cooler; a circumstance of no small importance where an hæmorrhage is to be restrained, by reason of the well known effects of heat, in rarefying the blood, and relaxing the tone of the solids. For the same reason, the quantity of bed-cloaths ought to be moderate, and the air of the room temperate, or rather inclining to cold.

To these precautions, ought likewise to be added a strict attention to the passions of the mind, the influence of which over the motions of the system, but especially

in exciting or increasng hæmorrhages, is often so very powerful. The patient, therefore, should be kept, as much as possible, in a state of calmness and serenity, and every cause of perturbation carefully avoided.

The above directions are always proper, from whatever cause the hæmorrhage proceeds; and when it is not very immoderate, it will often be considerably abated by such a method alone. Notwithstanding some favourable appearances, however, it will be necessary to persist for some time longer in a steady observance of the same rules; as too sudden a relaxation in this point might recal the hæmorrhage with greater violence than before. Some physicians, indeed, have disapproved of close confinement to bed, from an opinion that it weakens the patient: but this objection must entirely vanish, when it is considered, that such an effect would be more certainly produced,
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by the greater loss of blood which must ensue from a contrary practice. The necessity of perfect rest, in the hæmorrhages of child-bed women, is universally acknowledged; and the close analogy between the two cases, should naturally recommend a similar treatment on this occasion likewise. But a still more prevailing argument in its favour is, that daily experience sufficiently demonstrates its utility, as well as the bad consequences arising from the neglect of it.

It has been thought of importance to place the patient in bed with the head and shoulders considerably lower than the rest of the body; those who advise such a method alledging that the motion of the blood to the uterus will thereby be greatly retarded, as proceeding in a direction contrary to its own gravity. This practice, however, promises no sort of advantage, to compensate for certain inconveniences which generally attend it.

The patient must not only be extremely uneasy and restless in that situation, which will oblige her frequently to shift for change of posture; but also the extravasated blood, being retained in the cavities of the uterus and vagina, and there coagulating, cannot afterwards be discharged without such violent straining, accompanied often with faintings and convulsive motions, as must tend to support the disease.

When the hæmorrhage seems to be principally excited either by a redundancy or rarefaction of the fluids, or a spasmodic affection of the vascular system, no remedy is more powerful in diminishing the flux to the uterus, than bleeding, on account of its evacuating, cooling, and relaxing effects. To facilitate the cure, the distension of the uterine vessels must be diminished by some means or other; and bleeding makes not only the most speedy and complete derivation from that organ,

organ, but likewise, after it has been premised, astringent remedies may be had recourse to, with less danger, and much more success. In plethoric constitutions, and such other habits as are particularly liable to profuse hæmorrhages, in the spring and summer seasons, at which times the blood is more apt to be highly rarefied, the use of venæsection becomes still more necessary, previous to the administration of any styptics, as, in these cases, the distension of the uterine vessels is always proportionally greatest. If a plethora be the sole, or principal cause of the disease, the losing a few ounces of blood is generally sufficient to stop the discharge; because the vessels of the uterus will naturally collapse, as soon as the redundancy is evacuated by such an artificial outlet: at least, the subsequent exhibition of some gentle and cooling purgative seldom fails to answer our expectations.

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No precise directions can be given in regard either to the quantity of blood to be taken away at a time, or the repetition of phlebotomy; as in both these points, we must be entirely regulated by the strength of the patient, the state of the pulse, and the urgency of the symptoms. Some authors are of opinion, that a few bleedings, succeeding each other at the distance of a few hours only, will have a much better effect than double the number repeated at greater intervals: and when nothing contradicts such a practice, it seems to be the most preferable; as the fluids are commonly generated so fast, that the effect of one bleeding may be lost, before another is performed at a more protracted period. Among other practical authors, the celebrated Hoffman deserves particular attention on the subject of bleeding in this disease.

Notwithstanding the advantages of phlebotomy in the circumstances above
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mentioned, the use of it must still be limited in the cure of the uterine hæmorrhage: for it would be extremely improper, where the blood was already deficient in quantity, the circulation weak and languid, and the tone of the solids relaxed; whether these symptoms are to be originally referred to a delicate habit of body, or to be considered as the more immediate offspring of the disease itself. In these cases, a quite opposite method must be pursued; and, instead of an evacuation which would only increase the debility that supports the disease, the defect of the fluids ought rather to be supplied by a nutritive diet, and the constitution strengthened by all such remedies as impart a brisker spring and action to the solids.

Most authors who have treated of the diseases of women, have pretty generally recommended cathartics in the cure of the uterine hæmorrhage, though in what
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salutary intention it is not easy to conceive; the operation of that class of medicines being always attended with a manifest stimulus, which would rather seem to forbid their use, in a disorder where every degree of irritation ought carefully to be avoided. They can seldom be indicated, unless where the patient complains either of gripes or a looseness; from which symptoms there may be reason to expect some crudities in the bowels, which may prove, in some measure, a cause of the disease, or, at least, of its violence and duration. To evacuate this, therefore, a cathartic may be necessary; and it can then be administered with the greater confidence, as less injury is to be apprehended from the temporary stimulus of the medicine, than the constant irritation of the offending matter. The purgative employed, however, ought always to be of the mildest kind; as tamarinds, lenitive electuary, casia, manna, &c. But
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when either of the two last is made use of, it will be proper to add a small portion of some grateful aromatic, in order to prevent the flatulence and distension of the bowels, which they are sometimes apt to produce in particular constitutions. When the patient is only troubled with costiveness, which contributes sometimes to increase the discharge, an emollient clyster is preferable to the gentlest purgatives; as it evacuates with greater celerity and less stimulus.

Some physicians have likewise employed emetics in the cure of this disease; but the objections to cathartics are still more conclusive against these, on account of the greater violence of their operation. If ever they are proper, it is when the existence of some irritating matter in the stomach seems to be indicated by sickness, nausea, or vomiting; and, in that case, a suitable dose

dose of ipecacuan may be properly enough administered. It is imagined by those who espouse this method of practice, that the spasms, excited by vomiting, have rather a tendency to restrain, than increase the discharge; as they affirm that they have often seen the hæmorrhage considerably diminished, after the operation of an emetic. Notwithstanding the fact here alledged may be true, the efficacy of the vomit, in contributing to such an event, may be greatly suspected, any farther than as it might remove something out of the stomach, which had probably supported the disease.

Upon the whole, where either cathartics or emetics are judged necessary, bleeding, if there is no contrary indication, ought always to be premised, in order to prevent too copious a determination to the uterus. But in no case should they be administered, when

when there is any pain, or perceptible tension of that part, as an inflammation might perhaps be the consequence.

Opiates restrain an immoderate flux of the *menses*, not only by diminishing the velocity of the blood in general, when it has been increased by any accidental stimulus in an irritable habit of body, but also by allaying such particular irritations in the uterus as might cause a more copious derivation of the fluids into that organ, than would be compatible with health. When the disorder, therefore, seems to proceed either from the more universal, or local affections here mentioned, no remedies whatever are preferable to those of the opiate kind; and in cases where they were indicated, I have often known them to be productive of almost instantaneous effects. They ought never to be administered, however, in cases attended with too great

great a fulness of the pulse, whether that symptom arises from a redundancy or rarefaction of the blood. But when the plethora has been diminished, either by venæsection or a continuance of the discharge, or the rarefaction has been allayed by cooling and condensing remedies, opiate medicines have certainly a beneficial influence in the conclusion of the cure, by mitigating such sensations in the uterus as may be excited by extravasated blood remaining in its cavity, and which frequently keeps the patient in constant agitation, or proves the cause of spasmodic contractions which support the discharge. I have ever found opiates particularly advantageous in the hæmorrhages of women who were scorbutic or hysterical, especially in such floodings as seemed rather to be originally attended, than succeeded, by a lowness of spirits, or other nervous complaints.

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Various external methods of cure, for diminishing the velocity of the blood in uterine fluxes, have been recommended from the earliest ages of physic, though in general they are now become obsolete. The venerable sanction, however, which they had received from the authority of the ancient physicians, may render a brief consideration of their effects not altogether unworthy of our attention. They may be reduced to cupping, frictions, and ligatures.

The place where cupping was reckoned most adviseable in this disease, was the breasts, or immediately under them. By that expedient a revulsion was imagined to be made from the uterus. When it is considered that the obvious effect of such an application is, to accumulate a greater quantity of the fluids in some of the branches of the ascending aorta, than they could otherwise

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wise

wife contain, there appears, indeed, reason for admitting that they must somewhat abate the uterine discharge. It is uncertain, however, whether the painful sensation, which cupping excites in the vessels by immediately distending them, and which may affect the whole body by sympathy, is not more than sufficient to counterbalance the sedative effects, which might be supposed to arise from such a temporary enlargement of a part of the vascular system; especially when we reflect that these applications are never so long continued, as that the vessels of the uterus should recover such a degree of elasticity as to resist the impetus of the blood, when it returns to its wonted circulation.

The parts on which friction was performed were chiefly the arms. This exercise was naturally supposed to accelerate the motion of the blood in the
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upper extremities, and thereby to cause a greater derivation from the uterus. In the estimation of its effects, however, it was not considered that friction, even in consequence of its influence on the parts to which it was applied, might increase the motion of the blood through the whole body, and so actually augment the evacuation which it was intended to restrain.

Ligatures were applied both to the upper and lower extremities. By lightly binding the limbs, in such a manner as to retard the return of the blood through the veins, without impeding its motion along the arteries, they were supposed to contribute greatly towards restraining the uterine discharge. The principles upon which this practice was founded, were not inconformable to the established laws of the circulation. The uneasy sensation, however, wherewith the ligatures affected the distended veins, might excite commotions in the body,

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unfavourable to the diminution of the flux, while the stagnation of the blood, which they also occasioned, might prove the remote cause of more lasting disorders.

Upon the whole, it appears, that the methods of cupping, friction, and ligatures, though universally recommended by the ancient physicians, in violent uterine hæmorrhages, may prove more injurious than salutary, and are therefore justly rejected in the present practice. It is a general objection against all of them, that they not only became prejudicial by a consequence inseparable from the very action on which their virtues were supposed to depend, but also by seeming to supersede the necessity of venæsection, for which, the fallacious advantages they promised, productive at most but of a temporary suspension of the disease, could never compensate.

Dipping the hands in warm water, with which some wine is mixed, has
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been recommended by Hoffman for restraining an immoderate flux, both by making a greater derivation of the blood to the upper extremities, and abating the spasm which he imagined to be the cause of the disease. But this practice appears to be attended with all the disadvantages of friction: for it is certain from experiment, that warm water alone, when applied to the surface of the body for some time, accelerates the motion of the blood; and such an effect must be produced, in a still greater degree, by the addition of any stimulating ingredient. Besides, it is natural to suppose, that the absorption which will take place, during the use of such a remedy, must tend rather to increase, than diminish the discharge.

When the velocity, and force of the blood, or its rarefaction, has been diminished, the next indication of cure proposed is, to promote the contraction of the uterine vessels, for which purpose we

are then to have recourse to astringent remedies.

No medicine will more fully answer the expectation of the physician, in this case, than the *pulv. stypticus*, which I have successfully prescribed for many years. The powder I generally used, was made of two parts of allum, and one of *terra Japonica*. Of this I commonly gave a scruple every six hours, or sometimes oftener, where the flooding was violent, and the patient could retain, or was not nauseated with, the medicine. But where the stomach was weak and irritable, I either diminished the dose, or inverted the proportion of the ingredients. In this stage of the disease, when the contraction of the uterine vessels was the object in view, and especially in the circumstances just now mentioned, I have frequently prescribed a few drops of laudanum, along with each dose of the powder, out of a spoonful of the *tinctura*

tura rosarum. The patient was also ordered to take frequently some spoonfuls of that tincture: and I have found it particularly useful in those floodings which appeared during a hot state of the weather, and seemed to owe their rise to a rarefaction of the blood.

In answering this intention, the Peruvian bark is likewise highly efficacious, whether the disease proceeds from a weakness of the uterine vessels, or a rarefaction of the blood. Where the stomach and bowels appeared irritable, I have joined laudanum with it, in the same proportion as with the powders; and in such cases, it is also more eligible to administer the bark in tincture, than in the more solid forms.

However effectual these medicines may be expected to prove, in an immoderate flux of the *menses*, the concomitant use of proper topical applications ought never to be neglected. Under this class are comprehended, fomentations, plasters,
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cataplasms, and injections into the vagina, all which are compounded of astringents. To these we may likewise add doils of lint, charged with medicines of the same denomination.

The fomentations ought here to be used cold, and applied by means of linen cloths or flannel, to the whole hypogastric region, and round the loins, if it can be done without incommoding the patient. They ought also to be renewed as soon as they become warm on the part, lest they rather promote than check the discharge. I have frequently ordered, with success, a fomentation of vinegar alone, or vinegar mixed with water: but decoctions of more astringent materials are generally made use of.

Plasters and cataplasms are compounded of similar ingredients, and applied to the same parts with the fomentations, but appear to be less efficacious.

Of all outward applications, injections into the uterus are evidently the most effectual, when they can reach the seat of the disorder: but the uncertainty of such an event must diminish our dependence upon them. When used, however, no acrid or irritating ingredient should be allowed to enter into their composition.

Dofils, or tents, are attended with the same inconveniencies, as injections; besides that by stopping the passage of the blood, they may occasion it to coagulate, and increase the irritation in the uterus.

Notwithstanding the cure of the hæmorrhage, after the determination of the blood to the uterus has been diminished, is principally to be effected by astringent remedies, both internally and externally applied, some caution is requisite in not stopping the flux too suddenly; as such an event might be productive of an inflammation of the part, and other bad consequences. For this reason, the motion of

the blood ought always to be sufficiently moderated, before we attempt much to increase the contractile power of the vessels.

For restraining an immoderate flux of the *menfes*, some modern physicians have advised to dip the feet in cold water, or in an astringent decoction which has been suffered to grow cold. They endeavour to establish the utility of such an application in repelling the blood from the uterus, by observing the efficacy of warm and relaxing baths to the feet in recalling the menstrual discharge. This method, however, I own I have never yet tried; and I am the more deterred from the experiment, by being convinced that cold, or repelling applications to the feet, are often the cause of spasms in the bowels, which ought by all means to be avoided, on account of the intimate connexion between the uterus and those parts. An immoderate uterine hæmorrhage
always

always requires a particular regimen. The patient, as hath formerly been observed, should be confined to bed, where she ought to be kept as free as possible from all agitations of body or mind. If the disease has been owing to a plethora, the diet ought to be thin and slender; but if to any other cause, it may be chosen of a more nourishing, though never of a stimulating kind. In all cases, however, where the flux is violent, wine ought to be used sparingly; and some astringent medicine should be boiled in whatever is drank, especially where the disease proceeds from relaxation.

Though the evacuation should be restrained, by the foregoing medicinal and dietetical course, the patient ought not to return immediately to her former manner of life; because, until the vessels of the uterus have recovered their usual tone, the disease is extremely apt to be recalled by any irregularity, especially

cially violent exercise. For this reason, I not only advise to persevere for some weeks in the use of the same medicines which have proved successful in the cure, though in smaller and less frequent doses than formerly, but also to observe the same regimen. I particularly discharge her from dancing, for some time after; and if she be married, it is an injunction of no inconsiderable moment, that she be slow in returning to the pleasures of the conjugal bed. The best prophylactic remedies which I have tried, are the bark and chalybeate waters; the former of which I recommend at all seasons indifferently, but the latter only in the more temperate or colder months, especially where the disorder seemed to proceed rather from a rarefaction of the blood, than a relaxation of the uterine vessels.

C H A P. IV.

Of the FLUOR ALBUS.

THE *Fluor Albus*, or the *Whites*, is a discharge of serous matter from the genital parts of women, and has received its denomination from the colour it commonly yields.

It has been disputed by physicians whether the seat of this disease be generally in the uterus or vagina. But it is certain that it may exist in the glands and mucous *lacunæ* of both these parts, as well as in the small arteries by which the menstrual blood is discharged.

The same structure of the uterine vessels which proves favourable to the monthly evacuation, seems likewise to render them liable to the inconveniences of the *fluor albus*. For while on account of the softness of their texture, their winding

winding course, and the veins being destitute of valves, they yield more readily to an accumulation of blood than any other part of the body, they must sometimes be so much distended, especially towards the monthly period, that the ferrous part of the fluids will ooze out from the small orifices in greater abundance than is sufficient for the purpose of lubrication, and thereby constitute an unnecessary discharge, which, according to the degree of its violence, must prove more or less injurious to health. In general, however, women who are troubled with this disease are disposed to barrenness, or if they happen to conceive, their pregnancy is soon terminated by an abortion.

Though the *fluor albus* may arise in women of a good constitution, in the manner above mentioned, it is nevertheless most frequent among those who are cachectic, and of a lax and weakly habit
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of body. Those also are found to be most subject to it in whom the menstrual evacuation is either defective or immoderate, and who have either had abortions or violent labours. The period, therefore, in which it is most predominant, may be dated from the thirteenth or fourteenth year, though there are many instances of girls of an inferior age, and even infants being seized with it.

The degrees of the disease are to be estimated by the quantity, consistence, duration, and colour of the discharge. In some the quantity is more copious, in others less, and it is generally increased by whatever occasions a redundancy or rarefaction of the fluids, or too much accelerates their motion; as intemperance in diet, a stoppage of perspiration, and violent exercise. The consistence of the matter is also various, being sometimes mild and viscid, at other times thin and sanious. In point of duration,
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the flux is sometimes so continual as to keep the *pudenda* constantly wet; at other times, it is observed to be either irregularly interrupted or periodical. The colour of the matter discharged is for the most part whitish, though frequently also it is variable, being sometimes yellowish, greenish, or inclining to black. In these cases it is often so extremely sharp, corrosive, and foetid, as to occasion heat of urine, great pain and excoriation of the parts.

Practical authors have made a distinction betwixt the continual or irregular *fluor albus* and such discharges from the uterus as are of a pale and whitish colour, and return periodically; regarding the latter entirely as a menstrual evacuation. But a flux wherein *serum*, and not blood, is discharged, seems to merit the appellation of a *fluor albus* rather than the *menfes*, and is certainly a morbid appearance, however it may in some degree

degree compensate for the natural excretion, and less affect the constitution than a more continual discharge.

The similitude of the *fluor albus* to the matter which is sometimes discharged from ulcers, might occasion it to be attributed to affections of that nature existing in the uterus or vagina; but it may be clearly distinguished from them by the absence of such symptoms as always precede suppuration.

It requires more attentive observation to distinguish it from a *gonorrhœa virulenta*, especially when it has been occasioned by violent purging in the cure of that disorder, and continues after the latter is eradicated. But here likewise we are furnished with characteristic marks of their difference. For besides the existence of ulcers in the vagina, which may be common to either disease, there is a greater heat of the genitals in the *gonorrhœa* than in the *fluor albus*, and in the former the matter
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is discharged from little excretory ducts about the clitoris.

It has been alledged, that if the flux cease during the time of the *menfes*, and return after that has disappeared, the disease is not venereal, but only the *whites*. This circumstance, however, is undoubtedly too fallacious to be the foundation of any certain diagnostic. For the matter of the *whites* may be so much tinged with blood as to appear to be suspended during the flux of the *menfes*. But we shall now proceed to the history of the disease itself, which will best enable us to distinguish it from those with which it has any apparent affinity.

The *fluor albus*, as has been observed before, is often extremely variable in regard both to the quantity and quality of the matter discharged, and the time of the evacuation. When the disorder is so violent, or has continued so long, as to affect the constitution, a weakness and pain
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are felt in the small of the back, which are commonly attended with a paleness of the face, loss of appetite, indigestion, nausea, and faintness. A palpitation of the heart is also frequent. Respiration becomes difficult. The eye-lids are tumid. The *menfes* are sometimes obstructed; sometimes they flow immoderately; by either of which accidents the running is commonly increased. The person is low spirited. Her urine is thick, turbid, and slimy; not separating the sediment so freely as in other cases, and appearing as if it was mixed with small threads or hairs.

Such are the symptoms which commonly attend the *fluor albus* before the strength of the patient is so much impaired that she falls into some other disease, when either a dropfy or consumption terminates the fatal scene, or a *prolapsus uteri* supervenes, occasioned by the excessive relaxation of that organ.

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The proximate causes of this disease are a redundancy of ferous humours, and a relaxation of the uterine vessels; whence it is always found to be most prevalent among women of weakly constitutions, and is endemial among the Dutch, where, besides the moisture of the atmosphere, the habitual use of stoves renders the uterine excretions more copious.

The occasional causes of the *fluor albus* may be reduced to two general classes, *viz.* those which relax the whole body, thereby rendering the fluids thin and ferous, and those which weaken the uterus in particular.

In the first class may be reckoned,

1. A low and watery diet.
2. An inactive life.
3. A moist atmosphere.

1. A low and watery diet relaxes the constitution in several different ways. As such aliments contain little of a stimulating

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ing quality, they will not be discharged from the stomach so readily as other kinds of food. Whence, by too long an application to that organ, they must weaken its fibres. The flatulence also which is commonly produced by aliments of that nature, will farther increase this debility; the consequence of which must be, that a still more crude and imperfect chyle will be formed, and such as never can be elaborated into good blood. Besides, the chyle which is made of watery food is not only defective in point of quality, but contains too few nutritious particles to repair the constant waste to which the solids are liable from the exertion of the several functions. A fresh cause of weakness will thus be communicated to the whole body, and the errors of the first concoction remaining uncorrected in the second, a crude and indigested chyle will be succeeded by a thin and watery blood. To this may be added, that in such a state

of the fluids, the thinner secretions will be increased beyond a just proportion, and the constitution be thereby more enervated.

2. An inactive life produces weakness by diminishing the digestions and discharges. Unless the fibres of the stomach be stimulated into contraction by the use of proper exercise, they become gradually more incapable of performing their function, and therefore indigestion will ensue. By the want of exercise, the blood is also moved with less velocity, whence the secretions and excretions will be diminished; while by such a diminution the vascular system must be distended, and by that means, not only suffer an immediate, but be likewise productive of a future increase of relaxation, by not elaborating the blood sufficiently for the purposes of nutrition.

3. A moist atmosphere relaxes the body not only by its humidity, but by diminishing

nishing perspiration, and thereby increasing the distension of the vessels.

In what manner the three occasional causes here enumerated, of the general relaxation of the body, are productive of the *fluor albus*, will appear, by considering the state of the blood in those constitutions where they have operated.

It is the natural effect of weak fibres always to act with small force. The several functions, therefore, must be imperfectly performed, and the excretions being diminished in proportion to the defect of the digestions, a load of ferous humours will be accumulated in the body, through the incapacity of the vessels for completing the process of sanguification: and the redundancy, which cannot be discharged by the regular laws of the œconomy, will be evacuated by such outlets as afford the least resistance to distension. But the part in the female body which is most liable to distension is the uterus,

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which will therefore become the channel of the discharge. This disposition of that organ, however, may be increased by various means, which lead us to consider the second class of occasional causes of the *fluor albus*, or those which weaken the uterus in particular. This class comprehends all such causes as either immediately weaken the part, or have a tendency to produce that effect by occasioning a greater derivation of the fluids towards it, whether they act by relaxation or irritation, and may be divided into the following.

1. An obstruction or immoderate evacuation of the *menfes*.

2. An abortion, or difficult birth.

3. Excessive venery.

4. Falls, or sprains of the back.

1. An obstruction of the *menfes* may prove an occasional cause of the *fluor albus* both by producing a general plethora and
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relaxation, and particularly affecting the uterine vessels. When these are distended with blood, the circulation will be in a great measure obstructed, and the fluids not yielding readily to the impulses of the heart, the thinner parts will be forced off by the lateral ducts, which, being thereby distended beyond their natural dimensions, may continue to afford a passage to the discharge.

An immoderate flux of the *menfes* may likewise occasion a *fluor albus* by stretching the extreme orifices of the blood vessels so violently as that they cannot afterwards recover their former tone, or be capable of resisting the serous humours which will flow through them in such a state of relaxation.

2. The effect of an abortion or difficult birth, in producing the *fluor albus*, is so similar in its operation to that of an immoderate flux of the *menfes*, that it requires no particular explanation.

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3. Excessive

3. Excessive venery becomes an occasional cause of the disease by increasing a derivation of the fluids to the uterus, and thereby producing such a turgency of its vessels as must be attended with an injurious distension.

4. Falls, or sprains of the back, produce the *whites* by doing violence to the vessels of the uterus, and stretching them beyond their natural capacity.

Though the *fluor albus* is commonly produced by a concurrence of some or other of the two classes of occasional causes which have been mentioned, there nevertheless are cases in which it is the consequence of a fault in the uterus only. In general, however, a relaxation of the whole body is antecedent to the weakness of that organ; and when the disease is thus complicated of an universal and partial debility, it is always the most difficult to cure. It is likewise of difficult cure when it proceeds

ceeds from falls, sprains, or any violent injuries of the uterus. By whatever cause it was at first produced, it becomes more obstinate by long continuance, increasing constantly the relaxation which originally occasioned it, and by which again it is increased in its turn. It seldom, however, proves mortal except in weak constitutions, where it sometimes induces a dropfy or consumption. Where the matter is white and mild, the prognostic is always most favourable, and the contrary in opposite circumstances. If acute pains are felt about the uterus, there is reason to be apprehensive of a cancer.

The indications of cure in the *fluor albus* are different according as the disease has been produced by one or both classes of the occasional causes above mentioned. Thus when a general relaxation of the body, and a consequent redundancy of ferous humours, are united with a particular

cular weakness of the uterus, the curative indications are, to alter the habit of body, divert the flux from the uterus, and restore the strength of the part. But if the disease is owing only to a partial debility of that organ, and has not been of long continuance, the use of corroborating medicines becomes the sole object of attention. As this indication, however, is comprehended under the more complicated idea of the disease, we shall proceed to the method of cure in the circumstances first mentioned.

When the *fluor albus* has been occasioned by an obstruction of the menstrual discharge, or any external injury, bleeding is proper at the beginning, in order to remove the distension of the uterine vessels and facilitate the circulation. But if the disease has been owing to any other cause, or has either been so violent or continued so long as to weaken the constitution,

tion, in which case the fluids are thin and watery, an evacuation of the globular part of the blood must always prove prejudicial; and accordingly I have known instances where the *fluor* was perceptibly increased after the imprudent use of the lancet. It is by the brisk action of the vessels alone that the fluids are either condensed, or kept in the consistence of good blood; and therefore when the force of the moving powers is improperly diminished by venæsection, the process of sanguification will not only be rendered imperfect, but the globular part of the blood will even recede into its serous particles, and thus fresh matter will be formed for increasing the disease.

As one of the proximate causes of the *fluor albus* is a redundancy of serous humours, the most salutary evacuations in the disease must be those which discharge such fluids. Here, therefore, our principal

pal resource is in purging, which of every discharge by the natural passages makes the largest and most immediate derivation of the thinner parts of the blood. For this purpose many have recommended the use of jalap, in consequence of a similitude betwixt the state of the fluids in the *fluor albus* and dropfy, in the last of which that purgative is administered with remarkable advantage. Rhubarb, however, appears upon the whole to be preferable, on account of that bitterishness and astringency which render it particularly beneficial in a relaxed state of body. Where the stomach was weak and delicate, I have given it in tincture, though otherwise I thought the powder more efficacious, and generally prescribed it in the quantity of half a drachm, mixed with an ounce and an half of weak cinnamon-water, and half an ounce of the strong. If the patient could bear the evacuation, I commonly repeated the draught in two or

three days after, and so for three or four times. By this means the redundancy of the humours was usually so much diminished, that the *fluor* seemed to abate, which I have always regarded as a certain sign that the constitution was not farther relaxed by the purgative course. When the disease had thus been moderated, I either entirely laid aside the use of the cathartic, or only gave a spoonful of the bitter tincture of rhubarb occasionally at bed-time, to prevent a regeneration of the humours; which was likewise the method I sometimes adopted from the beginning of the cure, if the patient seemed too weak to bear a larger dose of the purge.

When the disease is in its infancy, without any ulcers in the uterus, and there is no room to suspect that it had been owing to any venereal infection, it seems more eligible to refrain from the use of calomel, as what, by its weight and subtilty, might farther injure the uterine vessels,
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which are already too much relaxed. However, if the matter be sharp and foetid, and the disease of long standing, so that there is reason to apprehend less pernicious consequences from penetrating the small ducts, which are then become so fatal, than by suffering the disease to be supported by obstructions, which may exist in the vessels of the uterus, it is certainly expedient to try the effects of that remedy; and in such circumstances I have found it of great advantage. Nay, I have sometimes been induced to administer mercury at an early period, where the vascular system seemed to be much obstructed with viscid fluids, of which the following case is an instance.

A young woman, of a lax and phlegmatic habit of body, and about twenty-three years of age, had her *menfes* entirely suppressed for near four months. In a few weeks after the beginning of her complaint, she felt an indolent tumour in one

of her breasts, and, much about the same time, was sensible of being seized with the *fluor albus*. The matter was white and of a good consistence, but the quantity pretty considerable. She was ordered five grains of calomel, to be taken at night with conserve of roses, and purged off next morning with rhubarb; both which were repeated at short intervals four times. The running sensibly diminished after the second dose. An emollient and dissolving embrocation was daily applied to the tumour, which also visibly declined. An infusion of bitters, and chalybeate medicines, in wine, was afterwards prescribed; by the use of which, in about a month after the commencement of the cure, her *menfes* returned, and she was entirely relieved from all her complaints.

It is probable that all the circumstances in this case proceeded from a viscosity of the fluids, the evidence of which certainly indicated an earlier recourse to mercury, than

than the state of the *fluor albus* would perhaps have rendered adviseable, had it been attended with no other complaint.

Though serous humours are most expeditiously evacuated by the glands of the intestines, yet they may also be discharged both by the urinary and cuticular excretions. The former of these channels, however, has generally been reckoned unsuccessful in the cure of the *fluor albus*, from an opinion that diuretic medicines, by their stimulating quality, have an influence on the vessels of the uterus, and might thereby, along with the flux of urine, increase the morbid evacuation. But whatever weight there may be in such an objection, it is certain that a derivation of the thinner parts of the fluids may be advantageously made from all the internal parts of the body to the pores of the skin. On which account, diaphoretic medicines are often used with success in the cure of the *fluor albus*. Accordingly,
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on the intermediate days of purgation, I have sometimes given, at bed-time, a few spoonfuls of such a julep. I am now convinced, however, that medicines of that class are by far the most successful when used in a dietetical manner; having often known a decoction of saffraas, guaiac, or sarsaparilla, to be drank with remarkable benefit, especially when boiled in lime water; than which there is scarce any better alterative in constitutions where the solids are lax, and the fluids phlegmatic. This excellent composition not only dissolves obstructions proceeding from a mucous viscosity of the fluids, but likewise supports perspiration, and tends to strengthen debilitated parts.

When the *fluor albus* is obstinate, and the constitution cannot bear a frequent or long continued increase of the natural discharges, artificial evacuations have often been advantageously substituted, by means of issues. Some authors abound with such

high encomiums on the efficacy of these expedients in this disease, as almost to prefer them to every other method of evacuation. I have certainly known them to prove of extraordinary advantage. But from the small quantity of matter which they discharge, they appear to be better adapted for preventing a regeneration of ferous humours, than draining off a considerable collection. However, as a palliative cure, they are undoubtedly beneficial; and as they afford a perpetual out-let for ferous humours, without diminishing any of the natural discharges, it is adviseable to have recourse to them in a long continuance of the disease.

When the ferous *colluvies* has been diminished by these evacuations, and the flux diverted from the uterus, we ought to prosecute the next indication of cure, which was, to strengthen the whole body, if the disease has been originally owing to an universal relaxation, and particularly,
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to restore the tone of the uterine vessels, which have been weakened by distension.

Previous to the use of astringent medicines, an emetic has generally been advised to be taken once or twice, to cause a revulsion, and thereby facilitate their operation. It would seem, however, that such a method is by far too temporary to produce any lasting effects. For it is not, certainly, in a chronic discharge, as in an acute fluxion upon a part, where a sudden revolution of the blood may prove the means of suppressing the disorder. But tho' vomiting may be of little consequence in the *fluor albus* in regard to its revulsatory effects, yet still it may prove serviceable as an evacuation, especially in those patients whose stomachs seem to be loaded with phlegm: and therefore, when there was no circumstance to forbid it, I have generally prescribed an emetic at the beginning of the cure.

The astringent remedies commonly used are the *terra Japonica*, *sanguis draconis*, *corallium rubrum*, &c. I have found none, however, more effectual than the Peruvian bark, particularly when the disorder proceeded originally from an universal relaxation. When taken in powder, or electary, its virtues are probably received most entire ; and in these forms, a portion of alum may very properly be mixed with it, if the stomach can bear it.

Chalybeate medicines may be advantageously joined with the bark, when evacuations have been premised ; as no remedies tend more to strengthen debilitated fibres, and give a brisker circulation to the blood. For these reasons mineral waters, especially those of the German Spaw, and Bath in Somersetshire, are prescribed with great success in this disease.

The hot waters of Bristol, though containing no chalybeate principle, are also
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found highly beneficial in the *fluor albus*, as well as in other disorders arising from immoderate secretions.

Besides astringents, mucilaginous medicines, such as gum arabic and tragacanth, are often too indiscriminately used in this disease, though they are only of advantage by sheathing the humours, when these are thin and acrid, and by guarding against excoriation.

Some of the native balsams, and terebinthinate medicines, particularly the *balsam. copaiba* and *terebinth. e Chio* are likewise recommended as serviceable. As they have both a balsamic and deterfive quality they may undoubtedly contribute to scour the vessels, and give a smoother consistence to the fluids: but being endowed more with warmth than astringency, they rather stimulate and comfort the fibres than impart any durable strength; and though they may properly enough be

premised, they will seldom be found sufficient to supersede the use of other astringents. I have indeed known the disease to be palliated by the *balsam. capaiba*, but never completely eradicated.

When all the medicines which have been mentioned prove ineffectual, a salivation has been recommended, as the ultimate resource: and if the disorder proceeds from obstructions of the glands, mercurial medicines are certainly highly adviseable: but as a general weakness of the body is commonly previous to chronic obstructions, it seems safer to exhibit those remedies in smaller quantities. I have myself seen but few cases of the *fluor albus* in which a salivation was tried; but from one instance which fell within my knowledge, I have ever since been deterred from prescribing that method of cure. In the case I speak of, the disease was accompanied with a venereal taint. The former had continued for some months, and the patient

patient was much reduced. As the mercury began to affect the mouth, the *fluor albus* sensibly increased, and afterwards kept pace with the salivation: nor did it return entirely to its former state, even on the decline of that discharge. The patient at last died consumptive.

Along with internal remedies, topical applications are of great advantage in the *fluor albus*, when they can reach the seat of the disease. The almost general neglect, into which these remedies have fallen, is reprehended by Hoffman, and there still remains reason for such censure against the present practice. Women of great delicacy, indeed, may no doubt be averse to the use of them, but certainly their efficacy ought to supersede every other consideration. They are most adapted to such cases as proceed more from a partial debility of the uterine vessels than a relaxation of the whole body. The manner in which they are used is both by in-

jection and fumigation; the former of which may be composed of a variety of astringent ingredients. Doctor Mead, for this purpose, recommends Bates's *aqua aluminosa*, or the *aqua vitriolica camphorata*. Nothing certainly which is acrid should be admitted; and of whatever the injections are made, they ought to be given only in a small quantity at a time, as one or at most two ounces, and frequently repeated. When there are ulcers in the parts, they should be cleansed by an injection of *mel. rosar.* dissolved in lime water; or some of that deterfive ingredient may be mixed with the astringents.

Fumigations most properly succeed the use of injections, and may be composed of the vapour of myrrh, mastick, olibanum, &c. thrown upon hot coals, or a shovel, and conveyed into the vagina. These applications ought also to be often repeated, and I have known several cases where
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they have been attended with remarkable advantage.

Among external remedies in the *fluor albus*, nothing is more effectual than the cold bath, when the disorder is occasioned by universal relaxation; as it braces the fibres, and promotes both the digestion and excretion of ferous humours. I have known some instances in which it has succeeded when medicines taken inwardly had failed.

When the disease has been owing to a sprain of the back, it is common to prescribe a strengthening plaster. But it would appear that such an application can be of very little advantage, as the ligaments of the uterus, which in that case are supposed to suffer a relaxation, can scarcely be affected by the use of any external astringent.

Scarce any disease requires a more attentive regard to regimen than the *fluor albus*,

albus, without a proper observance of which the most salutary remedies will generally prove ineffectual.

Temperance in eating and drinking is so indispensably necessary that there are many instances of people being cured by that means alone, without the assistance of any medicine. From whatever cause the disease has proceeded, it is impossible that the uterine vessels can ever recover their tone while they are kept in a state of distension by the use of too full a diet: and if the constitution has been previously relaxed, the flux must unavoidably be increased by the redundancy of serous humours which will be accumulated by a course of intemperance.

Proper regard should be had to the quality of the food as well as to the quantity, especially where the patient is weak; in which case the aliments ought to be nourishing and easy of digestion; consisting of chocolate, sago, jelly of harts-horn,

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or calves feet, and the tender kinds of fleshes, which should rather be roasted than boiled. Salted meats, cheese, acids, and in general most vegetable substances ought to be avoided, as affording either too viscid or too crude and watery juices to be easily assimilated in a relaxed state of the concoctive powers. The flatulence likewise which is commonly produced by a vegetable diet, renders aliments of that nature still more unsuitable when the bowels are weak. I have often observed good effects from the white of an egg, beat up with a little sweet milk and sugar, and taken once or twice a day.

The most suitable drinks in this disease are Pyrmont, Bristol, or lime water, with the addition of a little port wine. Decoctions also may be used for this purpose, made of mace, cinnamon, and some of the astringent roots and flowers; to which, if the matter discharged be thin and sharp, a little shavings of harts-horn, or gum arabic

arabic or tragacanth, may be added, to give the fluids a more balsamic consistence, and prevent excoriations of the parts. The use of tea ought certainly to be prohibited on account of its relaxing quality; but it would appear that coffee may be drank with less detriment, if not even with some advantage, especially in phlegmatic constitutions.

I have more than once known the *fluor albus* cured by a well regulated milk diet alone, after a tedious course of medicines had proved ineffectual, in women of a thin habit of body, and in whom the disorder had been produced by a general weakness.

A warm and dry air is of great advantage in this disease, by promoting perspiration; and I have often observed, that when the discharge was interrupted by catching cold, the patient complained of an increase of the *fluor*; the perspirable matter being carried, by a *metastasis*, to
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the vessels of the uterus. This accidental increase of the disease, however, was soon removed by a gentle diaphoretic.

In order the better to support the perspiration, I have advised the use of a pair of flannel drawers, which reached as high as the navel, and was worn with considerable advantage. It was impregnated every morning with the vapour of myrrh, mastic, and olibanum; and when thus used, it never failed of abating the pain in the small of the back, where that symptom was troublesome.

This method of wearing drawers would appear to be preferable to the use of a flannel shirt; as the parts adjacent to the uterus are thereby more closely embraced, and a greater derivation consequently made from that organ. It is probable, however, that if the upper parts of the body were also invested with flannel, the effect would be still more beneficial. We know for certain that there is a remarkable connection

tion between the vessels of the uterus and the breasts, and it would therefore seem advisable that these parts in particular should be kept warmly covered in this disorder.

Moderate exercise is beneficial in the *fluor albus*, as in all diseases proceeding from debility; though those kinds of it, which too much employ the limbs, are prejudicial in proportion to their violence and duration, by occasioning a greater quantity of blood to flow into the vessels of the uterus, and thereby increasing their distension. The most suitable in this disease is riding on horse-back or in a carriage.

I shall now only observe, that the indulgence of venereal embraces is incompatible with the indications of cure; and this remark ought certainly to be intimated to such patients as live in a conjugal state, since it would be absurd to expect the desired success from any medicines, while their salutary effects are counteracted by an injurious use of the non-naturals.

CHAP. V.

Of the HYSTERIC PASSION.

THE multiplicity of symptoms which constitute the idea of this disease has procured it various appellations; physicians denominating the complex malady by that particular symptom which they observed to be either the most frequent or predominant in their patients. For this reason we find it treated of by authors under the several names of the hysteric passion, suffocation, strangulation, ascent of the uterus, and uterine epilepsy. In its nature it so nearly resembles that disease in men which is termed the hypochondriac, as to be distinguished from it only by the diversity of the sex which it invades. But though the hysteric passion is confessedly more frequent now than formerly, it is not of recent origin, but was known to the ancient physicians.

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This disease chiefly seizes women who are delicate and endowed with great sensibility. The unmarried and widows are more subject to it than those who have husbands, in so much that many have been relieved from it by entering into a conjugal state.

The hysteric passion is one of those diseases which seizes a person at intervals, but without observing any regular and stated periods. Sometimes the paroxysms return more frequently; sometimes the intermissions are longer. It is observed, however, that people who are subject to this complaint, though they often live unmolested by the more uneasy and palpable symptoms which attend it, are yet, if carefully examined, seldom found entirely free from the more latent, and less obvious indications of the disease. As the return of the paroxysms is irregular, so likewise are their violence and duration.

CHAP.

The character of this disease is so various and complex, as scarce to be comprehended by any precise and definite limitation. The vital, the natural, and the animal functions are equally exposed to its invasion: and the judicious Sydenham has observed, that there is almost no internal disorder of the body which is not sometimes counterfeited by it. A malady so anomalous and excentric in its appearances might baffle the most accurate description, but, happily, to guide our investigation, it is generally accompanied with some peculiar symptoms which elucidate the genius of the disease. We shall now proceed to describe it.

At the approach of the hysteric paroxysm the person is commonly seized with an unusual listlessness and languor, accompanied with yawnings, hiccup, a sense of creeping, and noise of the

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intestines; a heat of the whole body, with a heat and redness of the face, which are succeeded by coldness and shivering. A tense or beating pain is felt either in the temples, fore-part, back, or crown of the head, which is circumscribed within narrow bounds, and is termed *ovum hystericum*, or *clavis hystericus*. A pain also sometimes attacks the loins, back, thighs, and sides of the thorax; sometimes the teeth; at other times the kidneys and bladder, counterfeiting that of the stone. The stomach and bowels are distended with wind. A vomiting is excited, of extremely acid matter, or green bile. A copious salivation ensues. Limpid urine is discharged, in great quantity. The patient laughs or cries immoderately, without any apparent cause. A delirium sometimes supervenes. Respiration is difficult, almost to suffocation; with the sense of a ball,

as it were, ascending towards the throat. The heart beats and palpitates inordinately. The pulse is hard and fluctuating, and sometimes becomes intirely imperceptible. In the rigour of the paroxysm, the patient falls into *deliquia*, apoplexy, or convulsions. In its declination, all the symptoms quickly subside. A murmuring noise pervades the bowels. Wind is exploded from the stomach. The body resumes its wonted warmth. The relieved patient looks up: and with deep, slow, and repeated sighs, returns to the sense of her deliverance. The fit is often terminated by a sweat, or the discharge of lymph, and sometimes bloody serum, which flows from the vagina.

Among the various symptoms of the hysteric passion, Astruc enumerates four, as the principal, which, he says, are observed in every fit, though they are not always in the same degree, and which he would therefore have to be considered

as essential to the disorder. "It is certain," says he,

1. "That the fit begins always with
"some dull sensation, and obscure mo-
"tion, which the patient perceives in the
"uterus.

2. "That this state is followed by some
"contraction of the neck, which makes
"the patient complain of being choaked.

3. "That the thorax is, at the same
"time, compressed together in the under-
"part, and the sides, as by a circle of
"iron.

4. "That the patients feel in the abdo-
"men, as it were, a ball, which rolls and
"shifts into different places, sometimes
"larger and softer, and sometimes harder
"and smaller."

Such, in general, are the symptoms ob-
servable in this extraordinary disease;
which, though they occur not all in
every

every paroxysm, or in every patient, are, some of them, more or less the constituents of that malady. When united, even partially and in a moderate degree, they throw the natural and animal functions into alarming disorder ; but, if totally and violently combined together, they may end in the destruction of life. And tho' such is seldom the event of hysterical commotions, there, nevertheless, are instances in which it has happened.

This disease was vainly imagined by the ancients to proceed from an ascent of the uterus, or from the spermatic humour corrupted in that organ; from whence vapours were supposed to arise, which attacked the different parts of the body, and, by their malignity, excited the hysteric paroxysm.

But in answer to this opinion it may be observed, that hysteric symptoms are seldom excited by any fault in the uterus,

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than by violent affections of the mind, or a disordered state of the stomach: for virgins are often free from hysterical complaints, while married women, and even those who bear children with easy labours, are sometimes afflicted with them. Moreover, women who are perfectly regular, and have no ailment about the uterus, are often molested by such symptoms; while those who labour under schirrous tumours and other disorders of that part, are either not in the least affected, or not in a very violent degree: and what still farther refutes the opinion of the uterus being the principal or only source of the disease is, that in those who have greatly suffered by a long continuance of it, the womb, after death, has frequently been observed to be sound. Upon the whole, therefore, though the uterus, like the alimentary canal and other *viscera* of the *abdomen*, may sometimes be the source of hysteric complaints, there is no reason to conclude that they proceed most frequently from any morbid state

state of that organ : and the close resemblance of the hysteric disease in women to that of the hypochondriac in men plainly evinces, that it cannot always proceed from the fault of any part of the body, which is not common to both sexes.

If we carry our inquiry to the predisposing cause of hysterical affections, we shall find that they generally arise in people of the weakest constitutions, and such as are endowed with nerves the most delicate and the most susceptible of every impression. This irritability of body is often hereditary, but may also be acquired by every accident and error of life which diminishes the vigour of the constitution. Hence long or severe fits of sickness are particularly injurious ; as are likewise all profuse evacuations, and abstinence, which produces the same effect ; together with immoderate watching, and a sedentary and inactive life. We may also rank among the causes of weakness, a viscid,
O 4 acid,

acid, and flatulent diet, whence crude and unwholesome chyle is produced, and all the baneful effects of indigestion. To these deserve to be added the desponding passions of the mind, the most violent abettors of hysterical commotions, and whose pernicious influence in producing imbecillity, is even superior to the more palpable accidents which affect the constitution.

Besides a too great sensibility of the nervous system in general, there is often a weakness or delicacy in particular parts of the body, which proves the cause of extraordinary commotions, and is no where more remarkable than in the alimentary canal, especially the stomach. But this delicate state of those bowels appears not to consist in a weakness alone, but chiefly in an uncommon and perverted disposition of their nerves, which have a feeling very different from what is natural. Thus, we observe, in persons endowed with

with such a delicate state of the alimentary canal, that the appetite is often not only good, but that the stronger kinds of flesh, even when salted and dried, will be more easily digested, than many kinds of vegetables, which sit much lighter on the stomachs of healthy people.

This irritable disposition of the nerves of the stomach and intestines varies greatly in the same persons at different times. Hence we find that the same kinds of aliments, which on other occasions are digested without any inconvenience, will sometimes lie long on the stomach, and produce pains, flatulence, and loose stools.

That many of those complaints which have been denominated hysteric, proceed from a particular depraved sensibility of the nerves of the stomach and intestines appears evidently from this consideration, that women in whom those bowels are much diseased, are not affected with any violent hysteric symptoms, while others
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who have a good appetite and digestion, and seem to have their stomachs free from noxious humours, are greatly troubled with disorders of that kind.

How such an excessive sensibility of the nerves of any particular part of the body, should occasion so universal a perturbation in the animal œconomy as is frequently observable in the hysteric paroxysm, can only be accounted for from that wonderful sympathy which seems natural to the whole nervous system.

But though an extreme delicacy of the nerves, either of the whole body or any particular part, may render a person liable to hysteric complaints, it seldom of itself excites them without the concurrence of some occasional cause, which gives rise to an irritation of the nerves.

The occasional causes may be properly divided into the following.

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1. The diminution or suppression of some accustomed evacuation.

2. Inanition.

3. Some acrid matter in the blood.

4. Wind, phlegm, or worms, in the stomach and bowels.

5. Obstructions in the abdominal *viscera*.

6. Violent passions of the mind.

7. The *effluvia* of some odorous substances.

1. A diminution or suppression of every natural or accustomed evacuation is frequently productive of fatal changes in the animal œconomy : and as irregularities in the menstrual discharge are those to which women are particularly liable, many and various disorders are therefore incurred from that cause. Among these the symptoms of the hysteric disease are not the least conspicuous. In what manner such violent

violent perturbations should be produced, by the retention of an accustomed discharge, may not perhaps be easy to account for. It would appear, however, from that obvious sympathy which subsists between the various parts of the body, that the symptoms of the hysteric disease, when it is the consequence of obstructed *catamenia*, are principally excited by a consent of the other nerves with those of the uterus; the vessels of which organ, in such circumstances, are particularly liable to distension, especially in women of a sanguine constitution. Thus the stomach and bowels, which are generally the parts most sensibly disordered in the hysteric paroxysm, may not only be secondarily but primarily affected, by an accumulation of blood: and in fact we find that bleeding is often the best remedy for the complaints to which women are liable at the age when their courses forsake them.

Several

Several reasons, however, would induce us to conclude, that a suppression of the menstrual evacuation may be hurtful, not only by the quantity of blood which is accumulated, but likewise by its quality. It is not improbable therefore, that, along with the menstrual blood, some noxious matter may be retained, which falling on particular parts in those who are endowed with a great sensibility of the nervous system, may excite such violent alternate contractions of the vessels, as frequently to expel the blood by orifices, through which it ought not naturally to pass: and this seems to be the cause of those peculiar hæmorrhages so often the consequence of suppressed menstrual evacuations. To the irritation of this acrimonious matter, affecting the nerves, many other complaints accompanying obstructions of the menses, may also be owing. For issues, setons, and old sores, when suddenly dried up, or a stoppage of perspiration, often produce

duce effects similar to those which follow an obstruction of the *catamenia*.

2. Inanition or a deficiency of blood may be another occasional cause of hysteric disorders: for symptoms of that nature frequently succeed an immoderate flux of the *menfes*, or *lochia*. It is necessary for the support of the several functions that the blood should exist in a sufficient quantity: for if it be defective, the secretion of the animal spirits must be proportionably small, whence there will arise a weak and disturbed circulation, with an irregular distribution of the nervous power.

3. That an acrid matter in the blood is often the cause of hysteric complaints, seems to be evinced from many observations, though we know not the particular kind of acrimony with which it is endowed. It is probable indeed that it may be of various kinds, and consist either of acrid and indigested aliments, or the relics
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of diseases which have not been perfectly cured. Scorbutic and scrophulous constitutions may also be disposed to engender it: but it would appear to be most frequently the offspring of an arthritic disposition: for when the nerves of the stomach are affected with the gout, many of the symptoms observable in the hysteric paroxysm are excited.

4. As hysteric disorders may be caused by some acrid matter in the blood, so they may likewise be occasioned by whatever excites a disagreeable sensation in the stomach and intestines. When these bowels are weak, and their nerves endowed with great sensibility, the air contained in the aliments is sometimes separated in so great a quantity in the time of digestion as to produce many uneasy complaints, such as *nausea*, faintness, low spirits, watching, difficulty of breathing, the *globus hystericus*, giddiness, shooting pains of the head, &c.

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How so many various symptoms in different, and even distant parts of the body, should be produced by wind in the stomach and intestines, may easily be accounted for from its effect in distending those bowels, thereby exciting spasms and disagreeable sensations in their nerves, which are communicated by sympathy through all the system.

The effects of wind, however, in the first passages, are not always uniform or equally violent even in the same person; but its operation will be different, according as the nerves of the stomach and intestines happen to be in a state of greater or less sensibility. And it is owing to such a particular disposition of the nerves of these bowels, that whilst a smaller degree of flatulence will produce many hysteric complaints, there is often no remarkable disturbance excited by a tympany, where the distension is infinitely greater.

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When the glands and exhaling arteries of the stomach and intestines pour out a greater quantity of *mucus* than is necessary to defend their nerves from the acrimony or attrition of the aliments, many troublesome symptoms are excited in delicate constitutions, from a disagreeable affection of the nerves of those parts. Such are a want of appetite, sometimes an unnatural craving for food, a *nausea*, flatulence, gripes and looseness, cold and hot fits, a quick pulse, weakness, faintings, lowness of spirits, sleepiness, sighing, convulsive motions, giddiness, and sometimes a slight delirium.

In persons in whom the alimentary canal is endowed with a great degree of sensibility, worms in the first passages are often productive of many symptoms similar to those excited by wind or phlegm, and dependent likewise on an irritation of the nerves of the stomach and bowels from

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the frequent motions or biting of those creatures.

Several of the symptoms occasioned by wind, phlegm, or worms, in the first passages, may also be excited by acrid humours in the parts.

5. Obstructions in the abdominal *viscera* often produce want of appetite, *nausea*, cramps in the stomach, flatulence, vomiting, hectic heats, low spirits, and other hysteric complaints. The manner in which such obstructions occasion these effects, is probably by disturbing the functions of the organs in which they exist, by impeding the free circulation of the fluids, and by affecting the nerves with uneasy sensations.

6. Of all the occasional causes of hysteric disorders, violent passions of the mind are those which throw the animal œconomy into the most sudden and surprising commotions, in persons of great sensibility.

lity. Bonnetus mentions the case of a lady, who, among other hysteric symptoms occasioned by grief and disappointment, was seized with frequent fainting fits, which sometimes lasted half an hour; and many instances are recorded by other authors, of the astonishing and even fatal effects of all the various vehement affections.

But besides that hysteric disorders are excited by violent passions of the mind, affecting the nerves of individuals, they are also frequently communicated by an amazing sympathy betwixt the nervous systems of different persons. Thus it has been observed in the Royal Infirmary at Edinburgh, that women have been seized with hysteric fits, from beholding others attacked with them. One of the most extraordinary instances, however, of such a sympathetic propagation of convulsive disorders, happened in the poor's house at Haerlem, in the time of the celebrated

Boerhaave. A girl, upon receiving a great fright, fell into convulsions. Immediately all who crowded round, either to see or assist her, were seized in the same manner. For the space of two days the disorder continued to be propagated; attacking one person successively at the sight of another, till almost all the boys and girls in the house laboured under the paroxysm. The physicians of the place assembled, and prescribed the most powerful nervous medicines without any effect. At last Boerhaave is sent for; who, observing in what manner the disease was communicated, resolved to try the force of an expedient which might affect the imagination. Accordingly, ordering several portable furnaces to be placed in the apartments, on which were laid burning coals, and hooks of iron, of a particular shape, he informed them, that since medicines had proved ineffectual, he knew of no other remedy than that the person who should be first seized with the next paroxysm, whether

boy or girl, should be burnt in the arm with a hot iron, as far as the bone. All were struck with such terror upon hearing this sentence announced, that when the paroxysm would again have seized them, they endeavoured with all their power to resist its progress, and their resolution was attended with success. This being so remarkable an anecdote, it may not be improper to give it here at full length, as it is related by Kaau Boerhaave, nephew to the learned professor *.

* In domo, qua pauperes ex eleemosynis publicè aluntur in civitate Harlemenfi, perterrita puella incidit in morbum nervorum convulsivum, certis paroxysmis reduncem: adstantium et adjuvantium in eam intenta itidem corripitur eodem morbo; postridie altera, deinde tertia, quarta, imò ferè omnes, tam pueri quam puellæ: status miserrimus! Corripitur hic, corripitur illa, imò ferè omnes eodem tempore, dum unum alter aspicit, prosternuntur. Medici solertes frustra adhibent, quæ dictat ars, saluberrima antiepileptica medicamina. Confugitur tandem ad Boerhaavium, qui misertus infelicis pauperum fortis, petiit Harlemum, et dum rem examinat, invadente in unum paroxysmo, vidit convelli plures specie epilepsiæ. Datis incassum optimis remediis a medicis sapientibus, et ad imaginationem ex uno in alterum traducto morbo, ritè

The great resemblance which the hysteric paroxysm bears to several diseases of a different nature, and which require each its correspondent method of cure, renders it extremely necessary for the physician to attain an accurate idea of its genuine symptoms, and to be able to distinguish it from those disorders with which it might be unwarily confounded.

perpenſis, hanc avertendo, credidit poſſe curam obtineri, et obtinuit. Scilicet præmonitis ephoris, præſentientibus omnibus, juſſit per cameram diſponi fornaces portatiles, prunis ardentibus inſtructas, atque iis imponi ferreos hamulos, ad certam figuram adaptatos; tum ita mandavit: Quia omnia fruſtra forent, ſe aliud neſcire remedium, quàm, ut qui primus, puer foret puella, infauſto morbi paroxyſmo arriperetur, locus quidam nudati brachii candente ferro ad os uſque inureretur; utque gravitate pollebat dicendi, perterriti omnes ad crudele remedium, dum inſtare ſentiunt paroxyſmum, omni mentis intentione, et metu dolorificæ inuſtionis, eidem reſiſtunt fortioris oblatione ideæ: et certe quantum valeat hic ab objecto animæ intentæ revulſio docet epilepſia diverſimodè curata, ut quidem ipſe terror eandem ſuſtulerit, febris epidemica, quartana, ptyaliſmus, matrimonium, virga.

Abr. Kaau Boerhaave impet. faciens Hippocrati dictum,

†. 406.

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Here, therefore, we must have immediate recourse to the characteristic signs, which were formerly enumerated, and which are so peculiar to this disease that they scarce ever accompany any other. These are principally the limpid urine, the sense of suffocation, and a pain in the back ; all of which may be clearly ascertained in ordinary cases. But if the fit is so exceedingly violent, and the patient so insensible, that we cannot procure any satisfactory information in regard to the existence of these symptoms, we must next examine into the constitution of the patient, as whether or not, before the paroxysms arose to so great a height, or during their intervals, she was subject to any of the more moderate and usual symptoms of the hysterical disease ; and whether the paroxysm was apparently excited by any fragrant *effluvia*, or any violent passions of the mind. If this enquiry should terminate in the affirmative, we may conclude with certainty that the disorder is of the

hysteric kind. But if, as sometimes happens, the paroxysm has been excited without any sensible cause, and we are thereby deprived of a principal criterion by which we might judge of its nature, we must then depend entirely upon the symptoms for the discovery of the disease: and in such a situation we ought to be particularly careful not to mistake the disease which actually exists, for one to which it is similar, as such an error might be productive of the most fatal consequences in practice. In order to prevent, as much as possible, any dangerous mistakes of this kind, it will be proper to take a comparative view of the principal diseases which are most frequently counterfeited by the hysteric paroxysm, and briefly to point out by what circumstances they may be distinguished from that disorder.

The hysteric paroxysm, though it sometimes resembles the syncope, yet differs from it in several circumstances. One is, that

that the face is redder and more tumid in the hysteric passion than in the syncope; another, that the cessation of the pulse is greater and more entire in the former than in the latter; and a third, that the cessation of the pulse is also longer in the hysteric passion than in the syncope. For there is no syncope from which a person recovers, where the pulsation of the heart is so entirely obliterated, as in the hysteric passion. Besides, there is scarce any syncope which lasts above an hour; whereas a violent hysteric paroxysm has been known to endure for some days. Astruc mentions another circumstance as distinguishing these two disorders, which is, that in the syncope, there is no motion perceived in the abdomen; whereas in the hysteric vapours, unless they be excessive, some is commonly felt, particularly about the region of the uterus; which may be yet better known by examining the vagina.

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There is yet a more obvious difference betwixt the hysteric paroxysm and apoplexy. For in an apoplexy, the pulse and respiration do not cease; whereas they either really or apparently cease in a violent hysteric fit.

The hysteric paroxysm may be distinguished from the epilepsy by the same criterion, as it may likewise by another circumstance, which is, that in the epilepsy, the patient foams at the mouth; an accident which is never observed to take place in the hysteric paroxysm, where the respiration being either totally suspended, or faintly performed, the expired air cannot be wrought up with the *saliva*, and agitated into foam.

When hysteric spasms attack the kidneys and ureters, they imitate so closely the concomitant symptoms of a stone in these parts, as sometimes to impose even upon experienced practitioners. But if they are not distinguished from each other previously

ously to the application of remedies, they may be clearly ascertained by the use of injections. For if a stone be the real cause of the complaint, the violence of the pain will be mitigated by those applications; whereas, on the contrary, if the disorder be of an hysterical nature, it will be more exasperated by them.

The hysteric disorder also frequently counterfeits the symptoms of the stone in the bladder; but the nature of it may be known by inspecting the urine, when it is not retained, which, in the former, is always limpid, and in the latter, commonly mucous or bloody.

From the comparison which we have here exhibited of the hysterical with other disorders, it appears, that however much it may resemble some local diseases in certain symptoms, there is still some peculiar circumstance which marks the distinction. But it will much facilitate the forming a just apprehension in every dubious

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ous and equivocal case, if we attend to that remarkable coldness of the external parts, which precedes hysteric fits, and the extreme lowness of spirits so observable in those persons who are subject to this disorder. By all these concurring observations the disease may be so fully ascertained, that notwithstanding it is the most various and irregular in its appearances, of all other complaints, yet its grand and inseparable characteristics can admit of no concealment or disguise.

This disease, when not exceeding violent, seldom proves fatal, but is, for the most part, extremely obstinate and difficult to cure. For when apparently vanquished, the slightest accident will often renew it; and it is scarcely ever eradicated in patients who are old and of a bad constitution. But though in its milder degrees it is not dangerous in itself, yet a long continuance, or frequent return of the paroxysms are highly injurious to the animal œconomy, laying the foundation of incurable obstructions

structions in the bowels, a dropfy, asthma, hectic fever, &c. If it proceeds from a suppression of the menstrual or hæmorrhoidal discharges, the return of those evacuations is found to remove it. A murmuring noise in the belly, and a humidity of the *pudendum*, are the usual signs of an approaching termination of the paroxysm.

In treating of the cure of the hysteric passion, as being a periodical disease, it is necessary to consider the subject in two distinct views, namely, that of the paroxysms, and that of the intervals betwixt them, or the temporary and radical cure. Physicians have universally agreed in the proper method of attaining the latter, but their opinions, in respect to the former, have been different and even totally opposite to each other. The principal object of dispute is the expediency of bleeding, when the paroxysm is violent. It is urged in condemnation of that practice, that,
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as the remote causes which produce the hysteric disease, are such as weaken the constitution, an evacuation, which tends manifestly to increase that debility, ought never to be admitted upon the principles of rational indication : for that it would be highly absurd to expect even any temporary advantage from such a method of cure, as, if considered in a prophylactic relation to the disease, we must allow to be extremely deleterious. In answer to this argument, it is insisted upon by the advocates for phlebotomy, that though bleeding, in certain circumstances, has a natural tendency to diminish the strength of the constitution, yet in general, such an effect of that evacuation is not uniform, but relative ; and that in a violent paroxysm of the hysteric passion, when the circulation of the blood is either much obstructed, or tumultuously agitated, by spasms and convulsions, it is infinitely preferable to adopt an expedient which may obviate such imminent danger, rather than,

than, from the apprehension of more distant and precarious consequences, timidly to abandon the patient to the hazard of instantaneous destruction. That in all cases where opposite indications take place, that which is the most important and indispensable ought ever to attract our chief attention; and that it would be vain to look forward with caution to uncertain contingencies, if we should be deaf to the inviolable suggestions of extreme necessity.

Such are the arguments made use of for and against the practice of bleeding. To consider the question in the light of theory only, and on which of the sides the determination might be most generally beneficial, it would perhaps be prudent to suspend our judgment: but if we conduct our deliberations with an attentive regard to the constitution of individuals, there is scarce a speculative point in physic which may be determined with less hesitation. Unhappily for medical science, physicians,
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in forming opinions from their practical observations, have too often contracted prejudices, and drawn general conclusions from too few, unestablished, and accidental facts. Hence various and opposite precepts have arisen in the practice of physic, and men mistaking, in some instances, the casual and uncertain events of diseases for the immediate effects either of the omission or application of a particular remedy, have universally recommended, or condemned, the use of it, though it can only be hurtful or advantageous in particular circumstances. On such principles as these has the practice of bleeding been traduced as injurious, by some physicians, in every hysteric paroxysm. But whoever considers the great commotions into which the whole animal œconomy is thrown in a violent fit of that disorder, will be satisfied of the expediency of such an evacuation, where the patient is plethoric, or there is a stoppage of any natural discharge. In a common difficulty of breathing,

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ing, when the lungs are much infarcted, we are often under an absolute necessity of letting blood, to facilitate respiration; and how much more strongly must that discharge be indicated, when not only the free circulation of the blood is obstructed by a spasmodic constriction of the pulmonary vesicles, but also the fluids are almost totally accumulated in the internal parts, by reason of the universal spasm and coldness of the surface and extremities of the body? In so urgent a situation, to withhold the lancet for a moment, might prove the irreparable destruction of the patient. Wherever, therefore, the convulsive motions are violent, and the person of a plethoric constitution, the operation of bleeding ought to be performed without the smallest delay. For unquestionable experience authorizes us to expect, from that resource, a speedier and more favourable termination of the paroxysm. In dangerous diseases we are allowed to try a doubtful remedy rather

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than none ; and though the most rational methods of cure may sometimes prove unsuccessful, it is more justifiable in the physician to follow boldly the most urgent indications, than to sacrifice his judgement to the fear of an injurious suspicion, that he had destroyed by temerity a life which he could not preserve.

In every hysteric paroxysm, foetid medicines, and volatile salts, ought to be immediately applied to the nostrils, either in a liquid or solid form. The bruised leaves of rue, tansy, or penny-royal, may be used for this purpose. The smoke of burning feathers, or that of amber, received into the nose, is also highly beneficial ; as is likewise a ball composed of equal parts of assa foetida, castor, and sagapenum, used in the same manner. Medicines of this kind, making a strong impression on the pituitary membrane by their stimulating quality, serve to excite the languid spirits, and counteract
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the sympathetic affections of the nervous system: and at the same time that they operate suddenly, they can be applied in all the various circumstances which occur; an advantage from which, in this disease in particular, we are often precluded, in administering remedies internally, either from a spasmodic constriction of the organs of deglutition, or the insensible state of the patient. The same purpose is answered by anointing the temples, as well as the nostrils, with spiritous and nervine applications; as the oils of amber, and castor, and spirit of harts-horn.

Such are the methods of cure which ought to be adopted in the paroxysm, when the patient is rendered incapable of taking medicines by the mouth. But if the disorder has not yet arrived at such a height, we ought immediately to administer hysteric medicines internally.

The medicines most proper in the hysteric paroxysm may be divided into

two kinds, namely, such as by their peculiar stimulus not only render the nerves less sensible of irritation, but also afford them some degree of temporary firmness and strength; and such as diminish, during the time of their operation, the sentient power of the nerves, and thereby allay the spasms and convulsive motions which proceed from any irritating cause. Of the first kind are musk, castor, camphire, and the foetid gums. In such hysteric complaints, however, as are attended with a quick pulse, and a feverish heat, these medicines ought to be administered sparingly, on account of their heating quality; as being much better suited to the cases where the pulse is weak and slow. But even in circumstances where they are proper, they are not all observed to be equally successful: for sometimes one, and sometimes another, will be found most advantageous, according to the disposition of the nerves of the stomach at the time, which is so peculiar in some cases, that

that a table spoonful of the juice of lemons alone has repeatedly assuaged a palpitation of the heart, after many of the medicines, denominated antihysteric, had been prescribed without effect. Upon the same principle we are informed by Riverius, that a draught, or a clyster of vinegar and water, has frequently given relief in an hysteric paroxysm.

Among the second class of medicines above mentioned, opium is the principal, which is not only highly useful in fixed spasms, but also in alternate contractions, and is adapted to the palliative cure of all hysteric symptoms, from whatever different causes they proceed. It is most advantageous, however, in those hysteric complaints which are chiefly the consequence of an extraordinary delicacy of the nervous system. But even in such cases it ought not to be too liberally used, or too long continued, as it impairs the strength of the body; and it ought seldom to be admini-

stered to patients who are low spirited : for though it may afford them a temporary relief from their complaints, yet afterwards they generally become more depressed than before.

If the patient be in any degree plethoric, bleeding, or some other evacuation, ought always to precede a more free exhibition of opium ; as it not only facilitates its good effects, and renders them more evident, but likewise greatly prevents any bad consequences which might otherwise result from a liberal use of that remedy. It generally happens that a continued use of opium renders the patient too costive ; in which case an aloetic pill, a spoonful of *tinctura sacra*, or some other gentle purgative, should be taken occasionally.

Besides the medicines properly termed antihysteric, which are to be used indiscriminately in all hysteric complaints, other remedies ought also to be employed, adapted to the particular cause of the
paroxysm,

paroxysm, and which therefore must often be entirely different from each other. On this account, it will be proper to take a short view of the more particular methods of cure, the choice of which must depend upon our knowledge of the occasional causes that have been already enumerated.

When hysteric complaints are owing to a diminution or suppression of some accustomed evacuation, that discharge ought to be promoted or recalled by such methods of cure as are adapted to the particular causes from whence the obstruction may proceed. But when in women advanced in life such symptoms first appear on the total cessation of the *menfes*, they are generally either palliated, or removed, by frequent small bleedings, gentle stomachic purges, and issues.

If inanition be the cause of hysteric complaints, as often happens after an immoderate flux of the *menfes* or *lochia*,

the cure, upon restraining these evacuations, consists in replenishing the vessels with wholesome and nourishing aliments of easy digestion. The violence of the symptoms ought in the mean time to be abated by anodynes, wine, or other cordial medicines, and an horizontal posture be advised.

In hysteric disorders, proceeding from any acrid matter in the blood, gentle laxatives and stomachic medicines are the most approved remedies.

When wind in the stomach is the cause of the complaint, nothing is more immediately efficacious than the *spiritus æthereus*, and laudanum. A tea spoonful of the former may be given with two table spoonfuls of water; and the latter in a mixture with pepper-mint water, and tincture of castor, or *spiritus nitri dulcis*: or, instead of these, opium may be prescribed in pills with *assa fœtida*. The salutary effect of opiate medicines above
those

those which are commonly called carminative, in dispelling wind, are evident from this circumstance, that whereas carminatives seldom afford immediate relief, unless when the wind is in the stomach, opiates are equally successful whether the flatulence be in the stomach or intestines. But when the situation of flatulent patients renders it improper to administer warm medicines internally, a plaster, made of equal parts of *emplastrum antihystericum* and *stomachicum*, may be applied to the stomach or belly with advantage; or four or five tea spoonfuls of the following liniment may be well rubbed on these parts at bed-time.

℞ Balsam. anodyn. batean. unc. unam.
 Ol. mac. per express. semunciam.
 Menth. drachmas duas. misce.]

Great benefit has also been experienced, in flatulent complaints of the stomach and bowels, from frequently rubbing the legs with a flesh brush.

If

If the cause of hysteric symptoms be phlegm infesting the stomach, a vomit is the speediest remedy ; along with which should be drank an infusion of horse raddish ; or a little brandy, or powder of mustard, may be added to each draught of the warm water, both to attenuate the phlegm, and strengthen the stomach to discharge it. When along with phlegm there appears to be a considerable degree of acidity in the stomach, half a scruple of any fixed alkaline salt, or a larger dose of absorbent powder, may be given twice a day.

When worms in the stomach and intestines excite hysteric disorders, anthelmintic medicines should be administered along with other palliative remedies.

When obstructions in the abdominal *viscera* are the occasional cause of the hysteric disease, we can only palliate the most troublesome symptoms till these are resolved. In general, however, it is difficult

ficult to ascertain the existence of such obstructions unless when the tumours can be felt, which is but seldom the case. But if want of appetite, indigestion, flatulence, vomiting, and pains of the belly have continued long, without any great intermission, and instead of abating by the use of medicines, become worse, especially in women whose *menfes* have left them, there is reason to suspect some fixed obstruction in the bowels, more especially if the patient has a quick pulse, without much heat or thirst.

In considerable obstructions of the *viscera*, if the person be of a full habit of body, bleeding ought to be premised before the use of deobstruent medicines; as, by lessening the quantity of fluids, it not only tends to diminish the obstruction, but also to facilitate the operation of resolving remedies. The best medicines in this case are the *tartarus solubilis*, sal polychrest, mercury, and soap. These, how-

however, are chiefly useful in such obstructions as have their seat in the follicles of the glands, or in the small vessels themselves : for little or no effect can be expected from them, when the obstructing matter is accumulated in the spaces of the *tela cellulosa*.

In the early stage of indolent obstructions in the abdominal *viscera*, frequent gentle vomits, and purges, are highly advantageous. But when obstructions of the stomach are become irresolvable, vomits, especially of the more drastic kind, must be extremely improper; as the violent contractions which they excite may inflame the obstructed part, or even burst some of the contiguous vessels. In such a situation, therefore, all hot and acrid nervous medicines must be likewise injurious.

In obstructions of the indolent kind, which are not deeply seated, scarce any thing is more remarkably beneficial than long continued friction. For at the same
time

time that it promotes the circulation thro' the small vessels, it tends to attenuate the impacted matter, and increase its discharge by absorption.

Among topical remedies, warm fomentations are of great advantage, both as they relax the vessels, and attenuate the obstructing matter. They ought to be applied daily morning and evening for near two hours at a time; taking care that they are not made so hot as to render the skin too tender, which would otherwise be the consequence of long continued fomentation. The most commodious manner of applying them is to use flannel cloths, either wrung out of warm water alone, or, what is preferable, a warm decoction of wormwood and camomile flowers, or the tops of hemlock, with the addition of a little vinegar.

In obstructions of the *viscera*, the use of whey, especially that of goats, is extremely serviceable. The diet ought to be light,
not

not flatulent, and the drink, which should consist either of water alone, or mixed with some Rhenish wine, should be used rather tepid than cold. Riding on horseback is also highly beneficial, especially in beginning obstructions.

When hysteric disorders proceed from violent passions of the mind, they scarce admit of palliation by any physical remedy, till the cause which produced them is abated.

Some women, whose nerves are extremely delicate, are so much affected with the *effluvia* of certain substances as to be thrown into fainting and convulsions. In such cases, the smelling to foetid medicines alone will usually give immediate relief.

Having taken a short view of the remedies which are adapted to the particular occasional causes of hysteric complaints, we shall, in the next place, consider the several auxiliary expedients, which have been

been indiscriminately recommended in the cure of the paroxysm from whatever particular cause it may arise.

Vomiting with soluble stibiated tartar, dissolved in the water of *carduus benedictus*, and taken glass by glass, as mineral waters, has also been recommended in the fit, to excite a concussion. But such a method of cure appears the less adviseable, on account of the excessive sensibility of hysterical constitutions, which renders them liable to great irritation from the slightest causes: besides that, by the action of vomiting, a greater quantity of blood is carried to the head, which, in the hysteric paroxysm, is generally too much loaded; though when the fit is excited by any foulness or acrid humours in the stomach, an emetic is the most proper remedy.

It is not an uncommon practice among women, to put some musk or civet into the vagina, to promote a discharge of lymphatic humour, with which the fit is sometimes observed to terminate. But
such

such local applications cannot be supposed to have any effect, unless in particular circumstances, though the argument of moral evil, which has been objected against that practice by its tendency to excite pollutions, seems to have too little foundation in rational principles to merit our attention. Perhaps the worst consequence attending such applications may be that they tend to excite the *fluor albus*.

An usual expedient formerly in the cure of the hysteric fit was, to apply ligatures about the limbs, from an erroneous notion that they prevented a supposed malignant humour from ascending from the lower extremities to the head, which was imagined to be the cause of the disease. But the effect of such a practice must have been as pernicious as the opinion on which it was founded was absurd. For nothing, certainly, could be more opposite to the indications of the disease, than to interrupt by ligatures the free circulation of the blood,

blood, which was already either totally suspended, or rendered extremely irregular by the spasms. However, though the method of binding the limbs by ligatures must be highly prejudicial, the practice of keeping them extended, during a violent paroxysm, may prevent many accidents which might arise from the convulsive distortions.

A broad bandage, rolled round the belly, has likewise been recommended as beneficial, probably upon the same principle with the ligatures. Such an application, indeed, may be liable to less objections than those last mentioned, unless it is drawn too tight, in which case it must undoubtedly prove a great impediment to respiration.

When the paroxysm has ceased, our next endeavour is, to prevent its return, which can only be effected by correcting the predisposing, and guarding against the occasional causes.

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We have observed above, that the grand predisposing cause of hysteric disorders is too great a sensibility of the nerves, whether it be diffused through the whole constitution, or most predominant in some particular part. The diminution of that sensibility, therefore, must be the principal intention in prosecuting a radical cure; and according as such a sensibility is either natural to the constitution, or only induced by some disease, or irregularity in living, so the cure, in proportion, will be more or less easy and successful.

For diminishing the sensibility of the nerves there are two classes of remedies; one of which operates, by strengthening not only the stomach and bowels, but the whole body; and the other, by a peculiar sedative action on the extremities of the nerves to which they are applied, thereby producing a temporary suspension of their disorders.

Among

Among the first class of these remedies, may be reckoned all bitters, such as *radix gentian. summitat. centaur. min.* and *cortex aurantior.* which may be infused in any of the stronger white wines, brandy, or boiling water, and preferably in either of the two latter, if the patient be subject to acidities in the first passages. The watery infusion may be rendered more agreeable to the stomach, by adding to each pint of it two or three ounces of the *aqua cinnamon. fort.* or any other cordial. The dose and strength of these infusions ought to be adapted to the constitution and particular circumstances of the patient; and if they prove too heating, they should be diluted with water, or taken along with some drops of elixir of vitriol. It is sometimes however observed, that even moderate and agreeable bitters lie heavy on stomachs which are very weak, in which case they ought to be omitted, and other strengthening remedies made use of.

One of the most celebrated medicines for that intention, is the Peruvian bark, which is also less heating than the bitters. Like these, however, it frequently disagrees with delicate stomachs, occasioning sickness, gripes, and sometimes a looseness. In decoction, or a watry infusion, it is less apt to produce these effects, than when taken in substance, especially if some grateful aromatic be added to them; and when infused in brandy, with a small portion of bitters or aromatics, it will seldom be found to disagree with the most delicate patients. When the bark is taken in substance, it not only sits easier on the stomach, but seems also to prove more effectual, if a glass of red port be taken after every dose of it; and the gripes and purging, which it sometimes occasions at first, may be prevented, by giving along with it, for a few days, a moderate quantity of the *confectio Iaponica*. Dr. Whyte informs us, that in the case of weak and windy

windy stomachs, attended with a general delicacy or debility of the nervous system, he has often prescribed the bark and bitters in the following form, with great success.

℞ Cort. Peruv. pulverifat. uncias
quatuor.

Rad. gentian.

Cort. aurantior. ana fescunciam.
misce.

Infunde in spiritus vini Gallici libras
quatuor, in balneo arenæ per dies
sex, et cola.

Of this tincture he generally gave one table spoonful, with four or five spoonfuls of water, every morning, an hour and a half before breakfast, and between seven and eight in the evening. He sometimes added to each pound of this tincture, an ounce or more of the *sp. lavend. comp.* which improves its taste, and makes it sit better on some stomachs. He has taken it himself in the morning, for eight months together, with remarkable advantage;

having, for three or four years before, been much troubled with wind in his stomach, a giddiness, and sometimes a faintness. He felt, in the morning, soon after taking this medicine, a grateful sensation in his stomach, accompanied with better spirits than he had at any time through the day, or than he ever found from drinking wine, even when he used it freely. He ordered this tincture to many patients, who have taken it for two or three months successively, and after intermitting it for some time, have begun it again. Most of them found benefit, and those most who used it longest.

When acids do not disagree, twenty or thirty drops of the elixir of vitriol may sometimes be taken with advantage in each dose of the above tincture. This elixir, taken twice a day, in the above or a larger dose, in spring water alone, has frequently good effects in strengthening the stomach, and restoring a decayed appetite, when
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the stomach complaints are attended with any degree of febrile heat, thirst, and a white tongue.

Notwithstanding the bark, as a strengthener, is far more powerful than any of the bitters, yet when joined with some agreeable medicine of that class, it is found to sit much easier on the stomach, and greater benefit has been experienced from the above tincture, than from the bark alone, either in substance or decoction.

Many prejudices have been entertained against a long continued use of the bark, as tending to produce obstructions in the bowels; but a more certain experience of its effects has now vindicated it from that imputation, and even in indolent glandular swellings I have known it to be administered, not only with safety but advantage.

Few medicines possess a strengthening quality in a degree superior to steel and its

preparations, the beneficial effects of which, in curing relaxations, not only of the stomach and bowels, but of the whole body, are deservedly celebrated by all physicians. The filings, the salt, Mynsicht's tincture, and the chalybeate wine, are the forms most commonly made use of. The quantity in which the filings may be taken, varies greatly in different constitutions. From five to fifteen or twenty grains, is that which is most usually prescribed. This last quantity will heat many people, though some can bear a much larger dose: for their action will be various and indeterminate according as they are finer or coarser, and according to the quantity of an acid in the stomach and bowels. In people of delicate constitutions, the filings of iron sometimes occasion a disorder in the first passages; in which case a few drops of laudanum, or what will have a better effect, fifteen grains or a scruple of theriac may be taken along with them

them at bed-time. Those with whom the filings disagree, will often bear Mynsicht's tincture, the chalybeate wine, and Pyrmont, or other steel waters of a weaker nature. Either of these, or the *mars saccharatus*, may be taken at the same time with the tincture of the bark and bitters above mentioned; but some advise the use of chalybeates only at those times when the patients intermit the bitters.

Besides iron and the several preparations of it, chalybeate waters have remarkable effects in strengthening the body. Those of Bath in Somersetshire, particularly, have restored many to health, who were affected with low spirits, and other nervous and hysteric complaints, proceeding from a weakness of the stomach and bowels.

However great the efficacy of the bark, bitters, and steel, is, in correcting too great a sensibility of the nervous system, no remarkable or permanent benefit can be expected

expected from a short and temporary use of them : for fixed and inveterate diseases require a long application of remedies. It may often, therefore, be necessary to continue the medicinal course for many months together, and perhaps not wholly to interrupt it for years ; intermitting only a week or two occasionally, lest the medicines should become too habitual to the constitution, and thereby fail of their intended effect. With this precaution, it may be most proper to take the bark and bitters chiefly in the winter and spring seasons ; and in summer, to drink either some of the chalybeate waters at the wells, or a gill or more of the Pyrmont or Hartfell Spaw thrice a day on an empty stomach.

No remedy whatever invigorates the body, and braces the nervous system more remarkably than cold bathing, which seems not only to act immediately on the cutaneous nerves and vessels, but to communicate

communicate its influence by sympathy to the inmost recesses of the body. The use of the cold bath, like that of the remedies above mentioned, ought to be long persisted in; and the warm or temperate seasons, as the spring, summer, and autumn, are the most proper for it. People of a plump habit of body may use it daily; but as its tendency is to extenuate, it may be sufficient for those who are thin, to go into it three or four times a week. When the *viscera* are much obstructed, or unsound, the cold bath would be extremely improper; as by driving the blood with greater violence towards these parts, the patient's complaints might be increased.

Though bitters, the bark, elixir of vitriol, chalybeates, and cold bathing, have been severally recommended, as the most effectual strengtheners of a weak and delicate nervous system, it is not to be understood, that the whole of them are to be used, especially at once, by the same patient.

ent. In some cases, the tincture of the bark, with some bitters, will be sufficient. In others, steel in substance, and the chalybeate waters, are more beneficial; whilst sometimes cold bathing may succeed, or at least make the cure more compleat, after internal strengtheners have in a good measure failed of their purpose. It may be observed, in general, that when hysteric complaints, arising principally from a weakness of the nervous system, are attended with a florid complexion, a quick pulse, and a preternatural heat, bitters and steel are improper; but an infusion of the bark in cold water, with elixir of vitriol, will frequently be of advantage. In cachectic habits, however, where the blood is poor, and the circulation languid, a composition of bitters and bark may be used, either conjunctly or alternately with chalybeate medicines.

Of all diseases, the hysteric requires the strictest attention to the non-naturals,
without

without a proper regulation of which the cure can never be effected : for in so delicate a state of the nerves, the smallest irregularities are hurtful.

As nothing tends more to relax the body than warm and moist air, that which is cool and dry is the most proper for hysterical patients ; such a state of the atmosphere being always found sensibly to brace and invigorate the constitution. In very cold weather, however, when the stomach and bowels are weak, a thin flannel waistcoat should be wore next the skin, which will not only support the perspiration that would otherwise be diminished, but also guard the digestive organs from many injurious impressions, to which they might be exposed in the winter.

The food ought to be nourishing, of easy digestion, and moderate in quantity. Fat meats and buttery sauces are hurtful. Heavy suppers ought principally to be avoided,

avoided, as the stomach is more apt to be oppressed in a recumbent than in an erect posture, and as digestion is performed more slowly in sleep than when we are awake.

The best drink is water alone, or with a little wine: but when there is any acidity in the stomach and bowels, water, mixed with a small proportion of rum or brandy, is preferable. The flatulence of malt liquors in general renders them hurtful, though many have drank *porter* with advantage.

A few glasses of wine, at or after each meal, may be of service, but more will oppress the stomach and retard digestion. Dr. Whyte is of opinion, that the best time to drink a little wine is upon an empty stomach: for the liquor being then less diluted, and more readily applied to the nerves, must have a more powerful influence in strengthening them. He says that, when his own stomach has been
weak,

weak, and after having been indisposed, he had hot palms, was languid, and apt to sweat upon motion, he has often found himself much better for a glass of claret, and a bit of bread, an hour or more before dinner. The wine cooled him, made his pulse slower, and gave him more spirits and strength. This observation, as he remarks, is greatly conformable to that precept of Celsus, *Si quis vero stomacho laborat, non aquam, sed vinum calidum, bibere jejunos debet.*

Tea ought certainly to be avoided by all hysterical persons, on account of its relaxing quality, since the free use of it is found, by unquestionable experience, to excite many nervous symptoms.

With whatever care and diligence the use of strengthening remedies is persisted in, they will often prove ineffectual without the assistance of exercise, which is of the greatest advantage in bracing the nervous system. Riding on horse-back is deservedly

deservedly preferred to all other kinds, as affording the briskest motion, and occasioning the least fatigue. It not only strengthens the whole body, as well as the bowels, but also greatly promotes nutrition. It ought always, however, to be used when the stomach is most empty; for after a full meal it retards digestion, and renders it uneasy and flatulent.

Sailing, also, has been recommended by Dr. Gilchrist of Dumfries, as a kind of exercise well adapted to the cure of nervous complaints, arising from a weak state of the blood and alimentary canal, and he has given some instances of its good effects.

Frictions, which have already been recommended in the cure of the paroxysm, are likewise of advantage as a prophylactic remedy; and if used not only on the extremities, but on the trunk of the body, and especially the abdomen, are particularly

particularly beneficial when the bowels are weak.

The sleep ought to be moderate, and neither begun at a very late hour, nor protracted too long in the morning : for indulging rest too long in bed tends to weaken and relax the body, while, on the contrary, it is much invigorated by the practice of rising early.

Nothing is of greater advantage in the cure of an hysterical disposition, than tranquillity and chearfulness of mind. Fear, grief, and anxiety, ought by all means to be avoided, as being particularly injurious to the nervous system. Even serious contemplation should not be too much indulged, but the mind be daily entertained with amusements and agreeable company.

C H A P. VI.

Of the FUROR UTERINUS.

THIS disease so rarely occurs in practice, that some authors have been led to question its reality, and the rather as no mention is made of it by Hippocrates or other antient physicians; who having made their observations in the warmer climates, where the disease is most frequent, would not, it is alledged, have entirely overlooked it, had they known it ever to exist. But it appears from the works of Aëtius, that it was expressly treated of by Soranus a Greek physician, who lived in the reign of Trajan; and from the evidence of other writers in favour of its reality, there is reason at least for admitting a general account of it among the diseases of women.

By the *furor uterinus*, is understood such a morbid disposition of the genital
parts

parts in women as strongly inclines them to venery, and is attended with a melancholy or *mania*.

The proximate causes of this disease are a sharpness of the humours separated from the excretory ducts of the clitoris, vagina, and uterus, and too great a turgency of these parts: and the occasional causes are all such as increase the acrimony of the humours, or derive them in greater quantity to the genital organs. Among these the principal are a plentiful diet, and too free an indulgence in luxurious and high seasoned dishes; obstructions of the *menfes*, cantharides, an immoderate use of the warmer emmenagogues, stimulating applications to the parts, and thinking on venereal subjects.

At first, the woman appears sad and silent, and seems to blush, as if from a consciousness of the depravity of her own inclinations. Her pulse may be observed to fluctuate at mentioning any thing which

relates to venereal gratifications. The disease continuing to increase, a *mania* at length supervenes; when the patient bursts into fits of laughing or crying, and being now become utterly insensible to the restraints of modesty, openly solicits to her embraces.

In the beginning of the *furor uterinus*, it may be distinguished from melancholy, by that pleasure which the person appears to enjoy in lascivious conversation; and in the more advanced stage, it is so strongly marked that its character can scarcely be mistaken.

The symptom which affords the most favourable prognostic in this disease, is an abatement of the disposition to be affected with venereal subjects.

The intentions of cure are, to diminish the turgency of the genital parts, and allay the sharpness of the humours.

To answer these purposes, bleeding is proper, especially where the menstrual evacuation

evacuation is suppressed ; and it ought not only to be performed plentifully, but even repeated, if occasion requires. Lenient purgatives, and softening clysters, should also be prescribed, together with cooling fomentations, and mild injections into the uterus, to allay the heat and tension of the parts. Opiates, and nitre, with emulsions of the cold seeds and gum arabic, are the most successful medicines.

The diet ought to be cooling and slender, and consist chiefly of vegetable food. The most suitable drink is the juice of lemons, with water and sugar. During the whole of the cure, the patient should be kept as cool as possible, her exercise should be moderate, and her mind diverted from indulging lascivious ideas.

C H A P. VII.

*Of an Inflammation of the UTERUS
and VAGINA.*

AN inflammation of the *uterus* and *vagina*, like that of any other part of the body, may be occasioned by whatever obstructs the circulation of the blood. The causes, however, which here operate most frequently, are a catching of cold during the time of the menstrual discharge, injuries received in delivery, the retention of the *lochia*, or pressure of the *fœtus*. It may also be occasioned by the internal use of cantharides, irritating pessaries, or other too stimulating applications.

When an inflammation exists in the *vagina*, it may be ascertained by the redness of the part; but if in the *uterus*, it must be discovered by other symptoms. Heat and pain, with a tension of the part affected, and its resistance to the touch, are those by which it may be distinguished,

distinguished, in common with all inflammations. But though these are the most essential characteristics of the disease, the great sensibility of the uterus, and its intimate connexion with other parts, occasion an inflammation of it to be attended with a variety of concomitant symptoms; such as a suppression of the *menfes*, when the disorder happens at the natural period of that evacuation, or of the *lochia*, when it seizes women in child-bed; heat and suppression of urine, difficulty of respiration, costiveness, or pain in going to stool, heaviness, heart-burn, vomiting, hiccup, pain of the head, especially under the eyes, also in the groins, loins, and thighs, lowness and inequality of the pulse, a fever, watching, delirium, and coldness of the extremities. If the inflammation proceeds from an obstruction of the *menfes*, a foetid ichor is generally discharged from the part; if from a suppression of the *lochia*, the symptoms are

commonly more violent, and there is a
tumour of the whole abdomen.

Inflammations of the vagina are less dangerous than those of the uterus, in the latter of which, if they have been produced by any injuries of the part, and are not speedily remedied, they often terminate in an obstinate schirrous tumor, if not in death itself.

The method of cure, in inflammations of the uterus or vagina, is entirely the same with that in other parts of the body. Bleeding is, therefore, the first and principal resource, which ought not only to be performed in a pretty large quantity at once, but repeated quickly, if occasion requires. Nor ought we here to be deterred by the smallness of the pulse, and the coldness of the extremities, which are usual symptoms in the disease, if an evacuation of blood be otherwise strongly indicated. In the mean time, however, the use of some mild cordial, with a gentle

anodyne, may be prescribed, in order to support the *vis vitæ*, and abate the acuteness of the pain, which is the cause of the most violent symptoms. The following julep is calculated for this purpose.

℞ Aq. cinnamom. ten. uncias sex.

Sp. lavendul. comp. drachmas tres.

Laudani drachmam unam.

Syr. diacod. unciam unam. misce.

Capiat ægra cochlear. duo quarta
 quaque hora, urgente dolore aut
 vigilia.

Antiphlogistic and relaxing medicines ought also to be frequently taken ; such as nitre and camphire, oily draughts, and cooling emulsions. Cooling and anodyne clysters are likewise to be given ; and flannels, wrung out of softening and discutient fomentations, should be applied warm to the abdomen, and frequently renewed. If the inflammation exists in the vagina, injections of the same nature, or resolving liniments, may be applied ;
 the

the former of which may also be administered in inflammations of the uterus, if there is room to expect that they may be introduced to the seat of the disease: and if the inflammation has been originally owing to the stoppage of the *lochia*, that evacuation ought to be recalled.

During the course of these inflammations, the patient ought to drink freely of diluting liquors; as barley water, linseed tea, emulsions, &c. The diet should be thin and slender, consisting of weak broths, gruel, panada, and the like; while the sick is also to be confined to bed, and kept from all disturbance as much as possible.

C H A P. VIII.

Of schirrous Tumors in the UTERUS.

A Schirrus is a disorder to which the uterus is frequently subject, and is defined to be a hard tumor, gradually formed by congestion, of which the proximate cause is too great a viscosity of the lymph.

Schirrous tumors are distinguished into two kinds, namely into those which yield a little to pressure, and are susceptible of painful sensations, and into those which are more hard and insensible. The former of these is termed the imperfect or bastard schirrus, and the latter the perfect or legitimate.

It is so exceedingly difficult to discover a schirrus in the uterus at its first formation, that it is usually far advanced before there are any signs of its existence. But as the tumor increases in bulk, the patient becomes

becomes sensible of a weight in the region of the womb, which seems as if it were falling into the *pudendum*, especially when the person stands upright. The tumefaction may then also be ascertained by laying the hand over the part, and feeling the hardness and resistance. It is sometimes necessary, however, for farther satisfaction, to introduce the finger through the vagina to the uterus, if possible, and examine the state of that organ.

Notwithstanding these several signs by which the existence of a schirrus in the uterus may generally be discovered, it has sometimes been confounded with other tumefactions of that part ; such as a mole, conception, or dropsy ; but there are certain circumstances which, if carefully attended to, may be sufficient to mark the diversity.

A schirrus may be distinguished from a mole, because in the latter, the swelling of the uterus is more uniformly round, while,
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in the former, inequalities are perceptible. By a mole, likewise, the health of the patient is much less affected than by a schirrus. Moreover, it is remarked in a mole, that if the *menfes* flow at all, it is irregularly, whereas if they appear along with a schirrus, they generally observe their usual periods. Lastly, in a mole, the breasts seem to encrease, and sometimes contain milk; but in a schirrus they appear rather to be diminished. A schirrus may be distinguished from conception, or pregnancy, by all the same signs as from a mole; and from a dropsey of the uterus, because under the former complaint, that organ feels hard and unequal, while in a dropsey its substance is uniform, and yields more easily to pressure.

Schirrous tumors of the uterus are so extremely difficult of cure, that a favourable prognostic can never be drawn with certainty concerning them. What is hard, of long standing, and distinguished by the name of the perfect or legitimate schirrus,

rus, has hitherto proved incurable by any medicinal application. But that which is soft, especially when incipient, is sometimes treated with success. The termination of a schirrus, however, when the cure of it is attempted, being more often by suppuration than resolution, such a transition of the disorder, in an internal part of the body, must always be attended with much danger, and when it is also considered, that a suppurated schirrus degenerates commonly into a cancerous nature, the apprehension of such an issue must greatly add to our diffidence in the cure. Indeed, in those tumors, the consequence of a suppuration is generally determined by the patient's habit of body; so that the case is always most dangerous in those of a scorbutic or scrophulous constitution. At the same time, should the person be otherwise ever so healthy, the cure of an internal schirrus ought not to be attempted, if the part be affected with shooting pains, as these are certain indications

cations of its tendency to a cancerous state.

The method of cure in a schirrus may be divided into two kinds, the radical, and the palliative ; the former of which is made use of when the tumor is soft, recent, and in a person of a good constitution ; and the latter in opposite circumstances.

In cases where it is judged proper to attempt the resolution of a schirrus, bleeding ought to be performed from time to time, to relax the tension of the part, and prevent any inflammation from the use of resolving medicines, especially where the *menfes* are suppressed, or have ceased, or any heat is felt in the uterus. But under the last mentioned circumstance, to attempt a radical cure would be extremely prejudicial ; and indeed, had it been commenced, it ought immediately to be laid aside on the smallest perception of such a symptom.

Laxatives

Laxatives ought also to be frequently administered, to prevent the increase of the tumor, and carry off the humors which may have been dissolved by the medicines.

The most proper resolvents in schirrous tumors are all saponaceous medicines, fixed alkaline salts, mercurial and antimonial preparations, with sea or chalybeate waters. I knew one instance of an incipient schirrus in the uterus removed by the use of the *cicuta*.

When these medicines are prescribed, they ought to be given in a very small quantity, and long continued; for there is great danger of exasperating the tumor by deobstruent remedies. For this reason it is far more prudent and eligible, either to use none at all, or those only of the mildest kind: and in this maxim I have been long confirmed, by observing not only the bad consequences of rashly attempting a radical cure of schirrous tumors

tumors, but the happier fate of such patients as had been restricted to the palliative method; who, by a proper regulation of diet, have lived long unmolested by any grievous symptom of the disorder, and at length died either of old age, or some other disease with which the former had no connexion.

In the palliative method of treating schirrous tumors, bleeding now and then in a small quantity, when the pulse is full, or any pain is felt in the part, and laxatives taken occasionally to prevent any inflammatory disposition of the tumor, are the principal expedients to be used. The diet ought to be easy of digestion in the palliative as well as the radical cure. All high seasoned dishes, and flatulent food, should be avoided, together with malt and spiritous liquors. Even wine itself should be used in a very small quantity. The most suitable drink is a light decoction of the woods. All violent

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exercise

exercise of the body ought also to be carefully abstained from, as tending to exasperate the tumor, which should be so carefully guarded against, that if through accidental catching of cold, the patient should be seized with a cough, it ought to be moderated by pectoral and anodyne medicines, lest its violence should do injury to the schirrus. In short, the palliative treatment of a schirrus requires such an attention to the non-naturals, as that the tumor may neither be increased by a viscosity of the fluids, nor inflamed by any violence of their motion.

C H A P. IX.

Of Abscesses, cancerous Ulcers, and Gangrenes of the UTERUS.

THE treatment of these cases differs nothing from that of similar disorders in other parts of the body; only being seated in an organ to which topical remedies can with difficulty be applied, they are extremely dangerous, and generally prove fatal. In abscesses and cancerous ulcers, however, the cure, whether palliative or radical, is chiefly to be effected by a mild, cooling, and detergent diet; of which milk should constitute a principal part. In uterine, as in other gangrenes, the most effectual remedy is the Peruvian bark.

C H A P. X.

Of the PROLAPSUS UTERI.

THE existence of this disease has been denied by most of the ancients, who imagined the uterus to be so well supported by its several connexions, particularly the broad and round ligaments, as to be utterly incapable of changing its situation. That opinion, however, has been amply refuted by the observations of later times; and authors abound with the most unquestionable evidence of the reality of such a complaint.

The ligaments, indeed, appear extremely inadequate to the office here assigned them. Their texture is so very lax that they undergo but little extension even in the last months of pregnancy, when the distance between their origins and insertions must be much greater than is requisite for admitting a descent of the uterus; and

and therefore they can contribute but very little towards the suspension of that organ. Hence, as the body of the uterus, in a natural state, rests upon the upper extremity of the vagina, into which its mouth and cervix are projected for a considerable way, that, and not the ligaments, must be considered as the principal instrument for supporting it in its proper place.

The disease has been commonly distinguished into the imperfect and perfect *prolapsus*. It goes by the former of these names, as long as the uterus, though advanced considerably downwards, continues to remain within the cavity of the vagina; and by the latter, when it has descended below the orifice of that canal, so as to appear entirely without the *pudenda*.

Before the uterus has passed the middle of the vagina, the patient is sensible of little inconvenience; but after that, there is a sense of weight, or *bearing down*, as

it is called, attended with a considerable degree of pain, which proceeds from the stretching of the parts connected with the uterus, and the unusual distension of the vagina. These symptoms increase, as the uterus falls lower; and others are likewise produced. In particular, the patient is much incommoded in walking; and when the uterus has reached near the external orifice, she finds frequent difficulty both in making water, and in going to stool, from the great compression on the neck of the bladder, and on the rectum. In the complete or perfect *prolapsus*, there is yet greater danger of pressing the uterus by the motion of the thighs in walking; and it is likewise liable to be excoriated by the acrimony of the urine.

The prolapsed uterus may be easily distinguished from a polypus of the vagina, notwithstanding some resemblance between them, in being both of a pyramidal shape. In the former, the apex always presents itself; whereas, in the latter, the base is
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the most depending part. The uterus, besides, has a firmer body, and a more polished surface; and the *os tincæ* can likewise be seen or felt.

As the uterus seems to be chiefly held up by the extremity of the vagina, every accident which weakens the resistance of that part will prove a cause of the *prolapsus*. The vagina may be affected either from a general relaxation of the habit, as induced by a delicate constitution, or a *fluor albus*, &c. or, what is more common, from the too great distension of its own fibres, in consequence of frequent and laborious births: and hence, the disease is generally most incident to those women who have born many children.

From whatever cause the *prolapsus uteri* proceeds, it is always a troublesome complaint, and often difficult to cure, as so many accidental circumstances will contribute either to increase, or renew it; such as coughing, vomiting, straining at stool, and lifting heavy weights, &c. For

the motions excited by these several means will have the same effect, in protruding the uterus, with that which they are known to produce in hernial cases.

When the complaint is recent, the cure is often performed by astringent injections, or other topical applications which restore a due tone to the parts. Should the woman, however, prove with child during the course of this practice, the uterus will be apt to come down again either in time of labour, or soon after delivery, though its lateral distension may prove a sufficient support in time of pregnancy.

When the disease is of longer standing, and the uterus has descended so low as the orifice of the vagina, topical remedies alone cannot be depended on. In this case, the uterus ought to be reduced, and properly supported in its place, till a radical cure can be effected. The woman of herself can reduce and keep it up while in bed; though after rising, and walking about,

about, it will be apt to fall down again. To prevent this, therefore, a pessary ought to be used, as the only certain means of preventing its continual descent.

If, through the neglect of the patient to call for proper assistance, the uterus, covered with the vagina, has entirely passed through the *os externum*, no time should be lost in attempting its reduction. This, however, is sometimes extremely difficult; as, from the depending situation of the uterus, by which the return of the fluids is retarded, and likewise from its friction against the thighs in walking, which invites a greater flux to the part, its bulk is not only considerably increased, but inflammation and other bad symptoms are frequently produced. In these circumstances, the woman ought to be confined to her bed, till, by bleeding, along with fomentations and poultices applied to the uterus, its bulk is so far diminished as to admit of being replaced: after which, it should

should be kept up by a pessary as directed in the preceding article.

When pessaries are found necessary, they should be worn for a considerable time. Various kinds of them have been recommended ; but those made of cork or ivory, and which are commonly of a circular or oval shape, are preferable to all others. They are easily introduced ; and, having a large opening in the middle, which permits a free discharge of the *menfes*, they may be used for a long time without any inconvenience. Another advantage attending them is, that they do not interrupt the freedoms of the conjugal state ; and we have instances of women who have even become pregnant, without being under the necessity of removing these instruments. In regard to their shape, the oval are certainly the most convenient ; being less apt to press upon the neck of the bladder and rectum, than those which are circular, when their more contracted
extremi-

extremities are applied to the *ilia*. The French make use of a pessary which seems to possess several advantages, especially as the woman can introduce and remove it at pleasure ; but it requires an apparatus and degree of attention which render it less convenient for those of inferior condition ; and, therefore, the flat oval kind, just now mentioned, seems the best adapted to general use.

Pessaries, however, are at most only calculated to palliate the disease, which can never be radically cured without the use of corroborating medicines ; such as the Peruvian bark and chalybeate waters, which ought to be persisted in for a long time. The last of these in particular have not only been often found successful in curing the disease when far advanced, but also in preventing its progress, when they were had recourse to, in its earlier stages : on which account, they ought always to be prescribed, where the circumstances

cumstances of the patient can afford them. The cold bath, likewise, is highly advantageous in this disease, as in all others depending chiefly on relaxation.

In regard to the regimen, it may be pretty nearly the same with that which is proper in the *fluor albus*.

C H A P. XI.

Of an Inversion of the UTERUS.

THE title of this disease renders any definition of it unnecessary. It can hardly ever happen but in consequence of labour, and that generally from too much violence used in extracting the *placenta*.

It is always attended with acute pain; and, if not quickly reduced to its natural state, occasions an inflammation, which usually terminates in gangrene, and death. After reduction, which, however, is generally performed with difficulty, the patient ought to continue for some time in the use of the same regimen, and course of strengthening remedies, which have been advised in the *prolapsus uteri*.

C H A P. XII.

*Of the Diseases of the OVARIA and
FALLOPIAN TUBES.*

TH E diseases of these parts have so few peculiarities, that we shall rather give a catalogue of them, than any particular account. They may be reduced to inflammations, ulcers, schirruses, cancers, incysted tumors and drop-sies, &c.

It is generally extremely difficult to ascertain when these parts are particularly affected; and the diseases to which they are liable, inflammation only excepted, are always so obscure in their origin, that they are seldom or never perceptible, even to the patient herself, till they have made a considerable progress.

When they become known, they are to be treated in the same manner with similar diseases in other parts.

Diseases of pregnant Women.

C H A P. XIII.

Of the Signs of CONCEPTION.

BEFORE entering on the disorders incident to pregnant women, it may not be improper to premise a few observations on the nature of those symptoms, which have been commonly supposed to denote an impregnated state.

Many particulars, relating to this matter, have been mentioned by authors, but most of them are equivocal and uncertain; as being not only common to a variety of other disorders, but likewise different in different women. The symptoms which have been chiefly insisted on, are the following, *viz.* a suppression, or diminution, of the *menfes*, hardness and swelling of the breasts, a decayed or depraved appetite, *nausea*, and vomiting, and an increased bulk of the abdomen, &c. All these,
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in a greater or less degree, are undoubtedly observable in most pregnant women, partly soon after conception, and partly in the more advanced periods of gestation: but it is equally certain, that they can by no means afford an absolute criterion of a pregnant state, in as much as the whole of them are often found to occur in other different circumstances. Thus, for instance, the *menfes* may be either diminished, or entirely suppressed, from various errors in the non-naturals, as well as from pregnancy; and the affections of the breasts and stomach, just now mentioned, are the natural consequence of such an accident, from whatever cause it proceeds. Again, a depravation of the appetite, or a strange desire for uncommon, or even noxious, substances, is an usual concomitant of long continued obstructions, and accordingly a frequent symptom in chlorotic women. Lastly, a distension of the abdomen is often produced, by an

ascites, the generation of moles, or a morbid enlargement of the glands of the uterus.

This remarkable conformity in the symptoms renders it sometimes extremely difficult to distinguish pregnancy from those other disorders which so nearly resemble it; and hence it suggests the necessity of always using great caution in delivering any opinion concerning this subject. For an erroneous judgment might not only expose the physician himself to ridicule and contempt, but, what is of yet greater consequence, it might likewise, on some occasions, endanger the life or reputation of an innocent woman. To obviate these inconveniences, therefore, as much as possible, it will be necessary, along with the general symptoms, to pay an attentive regard to other peculiar circumstances, which, in conjunction with the former, will contribute greatly to characterize the particular case.

In the beginning of pregnancy, its symptoms are so very similar to those that belong to obstructions, as hardly to be distinguishable from them. Both cases are alike attended with a stoppage of the *menfes*, which is gradually succeeded by the same train of complaints ; only, with this difference, that, in a pregnant woman, they are generally more rapid in their progress, as well as more violent in degree. In a simple obstruction, the disorders of the stomach not only increase in a more gradual manner, but are likewise less liable to rise to such a height as greatly to molest the patient ; the retching to vomit, in particular, is a rare symptom in this case ; nor does that unaccountable craving for strange and unwholesome aliments appear in the earliest stages of the disease. But the contrary of this happens in pregnancy. Most of these symptoms begin to shew themselves soon after the first failure of the *menfes* ; the loathing and sickness at stomach, accompanied with violent retchings,

ings, but especially in the morning, are generally very troublesome; and the longings of pregnant women are particularly absurd. Besides, the complaints that depend on mere obstruction always grow worse, the longer they continue; while those proceeding from pregnancy begin gradually to abate in the third month, till at length, about the end of the fourth, they frequently disappear, or, at least, become sensibly diminished.

These are the principal signs for distinguishing, in the first months, between those obstructions that are occasioned by pregnancy, and such as may be produced by any other cause. The evidence arising from hence, however, can amount to no more than a probable conjecture, as different women, according to their several temperaments, will be variously affected, in either of these situations: for some who are actually with child, will be but slightly disordered during the whole of

their time, while the complaints of obstructed patients will sometimes be increased with uncommon severity. From this ambiguity in the symptoms, these different cases may be so far confounded together as sometimes to give occasion to unhappy mistakes ; as not only obstructed women may be subjected to very injurious suspicions, but a like fallacy, in regard to those who are really pregnant, may often suggest an improper, and even dangerous method of practice. Where, therefore, there is so much latitude for deception, and so much depends on the accuracy of our conclusions, we should never be hasty in forming an opinion ; but rather judge with charity, and prescribe with caution, till time and the concurrence of other circumstances more fully elucidate the nature of the case.

After the fourth month, the diagnostics of pregnancy become daily more evident and certain, by means of the gradual swelling of the abdomen, and the touch in the
vagina.

vagina. In the fifth month, the *fundus uteri* is so far extended above the brim of the pelvis, as to form a large tumor in the middle space between that part and the navel, which can be plainly perceived by the pressure of the hand ; while, at the same time, the introduction of the finger will discover the neck of the female organ to be considerably shortened. In the sixth month, these signs are yet more manifest, and they continue afterwards to be more and more perceptible as the woman advances in her pregnancy ; till, at length, on the approach of her delivery, the uterus is so far distended upwards and downwards, that the *fundus* reaches as high as the pit of the stomach, and its neck is entirely obliterated.

Sometimes, however, there is a considerable variation in the progress of these symptoms, which might be apt to embarrass young practitioners. In some women, the ascent of the uterus is much quicker

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than usual, as its *fundus* will arrive at the *scrobiculus cordis* even in the seventh month; while in others, especially those who have a prominent belly, it never reaches the upper portion of the abdomen, but, projecting over the *os pubis*, occupies chiefly the inferior parts. Neither does the shortening of the *cervix* always keep pace with the term of pregnancy; its length being found the same, at the eighth month, in some women, as, in others, at a much earlier period. Hence it follows, that sometimes the touch in the vagina, and sometimes the appearance of the abdomen, may at particular times prove uncertain; but both together will seldom fail of yielding sufficient information.

In the next place, in order to distinguish between pregnancy and an *ascites*, it will be necessary to attend to the nature of the tumor, and other particular symptoms. In the former, the part immediately above
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the *pelvis*, is the first distended, and then the whole abdomen by degrees; the tumor likewise feels hard to the pressure of the hand, and its figure is circumscribed. On the contrary, when there is a collection of water in the abdomen, the swelling is every where alike; it feels soft to the touch, and a fluctuation is plainly perceived. But if the external examination be deemed insufficient, the touch in the vagina will easily determine the point. For the impregnated uterus, on account of its increased bulk, will resist the finger, while that of a dropical patient will be felt light and of its natural dimensions. To all which may be added, that a dropsy is generally attended with great thirst, a pale and extenuated countenance, and several other marks of a worn-out constitution.

Other morbid tumors of the abdomen are to be distinguished from that which is the consequence of pregnancy, by compa-

ring their preceding and concomitant symptoms, the progress of their growth, their duration, and external appearance, &c. with the more essential characteristics of the latter, as already described.

C H A P. XIV.

Of the Diseases of PREGNANT WOMEN.

THE symptoms which immediately follow conception become so many temporary complaints, which generally cease about a certain period, and give way to others. Hence, therefore, the disorders of pregnant women may be properly divided into two different classes; namely, those which attend the beginning of pregnancy, and such as are incident to its more advanced stages. The former seem to depend on a plethora, or fulness of the vessels, occasioned by the retention of the *menfes*, while the latter chiefly derive their origin from the increased bulk of the uterus, compressing the surrounding parts. Many of these complaints are sometimes exceedingly troublesome, but they can only admit of a palliative cure.

S E C T.

S E C T. I.

Of the Disorders which attend the Beginning of Pregnancy.

Nausea and Vomiting.

MOST women with child are affected, more or less, with this symptom ; but particularly in the mornings, when they attempt to rise out of bed. It commonly begins soon after conception, and continues till the end of the fourth month, or even somewhat longer ; but about that time, it generally grows milder, or ceases altogether, and then the woman recovers her appetite and natural healthy looks, both which had formerly been very much impaired. In some particular constitutions, however, the vomiting perseveres, with little or no diminution, to the latter end of pregnancy.

In the beginning, when the vomiting is mild, it is so far from being accounted dangerous, that it is rather thought to be

attended with salutary effects ; not only by unloading the stomach of all superfluous aliments, and thereby preventing too great a degree of plethora, but likewise by exciting such motions as may greatly assist the extension of the uterus. On the contrary, if the vomiting be very violent, even in the first months, or continues much longer than the end of the fourth, it becomes an object of more serious attention, and ought certainly to be alleviated as much as possible, as it not only fatigues and exhausts the patient, but also exposes her to the hazard of an abortion, with all its dangerous consequences.

In respect to the cause of this complaint, it may chiefly be attributed to plethora in the beginning, as hath been already observed ; though, in some cases, it may likewise be occasioned by a certain kind of stimulus excited in the stomach, on account of its nervous communication with the uterus, wherein great changes
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are now taking place. But when the vomiting continues beyond the fourth or fifth month, it is then owing to the same cause which produces the other disorders most peculiar to the last stages of pregnancy, namely, to the compression sustained by the neighbouring parts, from the increased size of the uterus; and this symptom is a proof, that the stomach, in particular, is greatly affected by that circumstance.

The cure, when the vomiting is not very violent, may be first attempted by gentle stomachic remedies, as a frequent use of mint tea, or small quantities of the compound spirit of lavender taken occasionally in a glass of wine, and other things of the like mild and agreeable nature. But nothing contributes more to settle the convulsive motions of the stomach in this case, than the following anti-emetic julep.

R Sal.

℞ Sal. absynth. drachmam unam.

Succ. limon. fescunciam, vel q. s.

ad saturationem.

Aq. cinnamom. simp. uncias tres.

Sacchar. purissim. drachmam unam.

M.

About two or three spoonfuls of this composition may be taken for the first dose, and one spoonful every hour, or half hour thereafter, according to particular circumstances, till the vomiting abates. But the efficacy of the medicine will be considerably increased, if to the quantity above prescribed, be added about two drams, or even half an ounce, of the *tinct. cinnamom.* or, otherwise, if twenty or thirty drops, or more, of that preparation, should occasionally be taken with every separate dose.

Along with these remedies, may likewise be tried external applications; particularly the *emplastrum stomachicum*, which, by itself alone, has been often found

found successful in this intention. It is commonly applied to the pit of the stomach; but its effects, perhaps, would be greater, if it were placed over the false ribs of the left side, under which the greatest part of the stomach appears to be situated. However, to ensure its utility, it may be made large enough to cover both these parts.

When the vomiting is only moderate, this method will generally be sufficient to keep the patient tolerably easy; but, in more violent cases, recourse must be had to evacuations, and especially bleeding, in order to diminish the plethora, and thereby procure a more speedy and permanent relief. Some have objected to this operation, as endangering abortion. But this is entirely a false notion; as phlebotomy is often the surest preservative against that very accident, and always less to be dreaded, even in that point of view, than the violent efforts of the disorder which

which it is here intended to remedy. It may, therefore, be performed with safety at any time of pregnancy, and repeated occasionally, when the urgency of the case requires it. As to the quantity of blood to be taken away at a time, that must be determined entirely by the degree of plethora, and the strength of the patient; but, at a medium, from six to eight ounces may be a proper quantity: and the discharge will always be attended with better effects, if it is made as near as may be to the usual periods of menstruation; at which times, by a certain law of nature, the commotions excited in the system by the redundant blood, are generally observed to be the greatest in all obstructions of the *menfes*, from whatever cause.

For the same purpose, it will likewise be necessary to keep the body open, as that will greatly contribute to take off the fulness of the vessels, and consequently to
relieve

relieve the sickness at stomach and vomiting. This, however, ought always to be attempted by the most gentle means; and every thing of a heating and stimulant nature, should be carefully avoided, as being apt to produce flooding and abortion.

If, notwithstanding all these precautions, the retching should continue so violent as to disturb the patient in the night, some gentle anodyne should be taken at bed-time as often as occasion requires. About fifteen or twenty drops of liquid laudanum, mixed with two or three spoonfuls of mint or cinnamon water, or some such grateful stomachic, will generally allay the irritation, and procure some refreshing sleep.

An attention to the diet, and other non-naturals, is of no less consequence towards the removal of this complaint, than the use of medicines. The food should be light, and easy of digestion; and a moderate quantity of the milder acids, as the
juice

juice of lemons, and white-wine vinegar, may be frequently joined with the drink. Moderate exercise, likewise, is highly conducive to the cure; and, in violent cases, when the circumstances of the patient can admit of it, she should be removed from a thick and confined air, to a more free and open situation.

Longings.

THESE commonly discover themselves, by an air of pensiveness and dejection in the mother. They are often very absurd, but entirely involuntary; and the woman generally continues anxious and uneasy till she has obtained her wishes. While women are under the influence of these desires, all reasoning is thrown away upon them; and, therefore, when the wished-for object can be procured, it will be proper to gratify them, as abortion has often been the consequence of a disappointment.

Pain and swelling of the Breasts.

SOON after the disappearance of the *menfes*, the breasts become hard, turgid, and painful, and seem to contain a thin, ferous sort of fluid. These symptoms, however, are seldom attended with any bad consequence, but generally wear off about the end of the fourth month, or soon thereafter, as the woman advances in her pregnancy. When the tension and pain are so great as to render the patient very uneasy, they ought to be relieved by venæsection and gentle cathartics, as already advised in the case of vomiting; the woman always taking care not to lace herself too tight.

Lowness of Spirits and Fainting.

WOMEN are more liable to a lowness of spirits during pregnancy than at any other time, and this symptom often terminates in a syncope. The fit is preceded, as in other *deliquia*, by all the
marks

marks of a weak and languid circulation, as a paleness and loss of colour in the countenance, universal tremors, cold and clammy sweats, and a feeble pulse, which gradually sinks, till at length it ceases to be perceptible, and all sense and motion appear to be entirely lost. This symptom is incident to all the periods of gestation, but is most common about that time when the child begins to quicken.

So frequent a disposition in pregnant women to lowness and fainting, may proceed, in general, from some unusual change produced in the whole nervous system, by means of the gravid uterus; but sometimes the syncope is owing to frights, sudden surprises, or the sight of disagreeable objects, &c. When any of the three last is the cause, the fainting is not unfrequently followed by an abortion; though on other occasions, unless the fits be very violent, return too often, or continue too long, there is hardly any danger.

The patient is to be recovered from the fit by the same methods which are commonly used in all other cases of fainting, *viz.* by the application of volatile or fetid substances to the nostrils, and dipping the hands in cold water, &c. and afterwards some wine, or other proper cordial, should be given, in order to recruit the exhausted spirits, and assist the powers of nature to renew their usual functions. In plethoric constitutions, especially such as are more than commonly liable to this complaint, a moderate use of the lancet, repeated from time to time, proves one of the best prophylactic remedies: and in all habitual languors, great sinkings and depressions of the spirits, even though not accompanied with faintings, it will be proper to prescribe a frequent repetition of some cordial medicine, for relieving the patient from the uneasy sensations, as well as the gloomy apprehensions, to which, at such times, she is apt to be subjected.

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For this purpose, a suitable dose of *sal volatile oleosum*, or tincture of saffron, may be taken occasionally in any proper vehicle; but, of all others, wine seems to be the most preferable diluter for medicines of this class, as coinciding most with their intention. If this fails, a spoonful of the following mixture, taken every hour, or oftener, will generally produce the effects of an useful cordial and restorative.

℞ Ag. cinnamon. simp. uncias
quatuor.

————— spirituos. uncias
duas.

Extract. croc. scrupulum unum.

Confect. alkerm. drachmas sex. M.

In the treatment of this complaint, however, some distinction will be necessary, both in regard to hysterical constitutions, and such as have been greatly weakened by profuse evacuations. When, therefore, the faintings of pregnant

women appear to be symptomatical, and chiefly to proceed from either of these habits of body, bleeding, by way of prevention, would be highly improper, and never ought to be employed unless when the violence of the fit may seem to threaten immediate danger, and cannot be subdued by any other remedy. At all other times, the cure, or rather the mitigation of that troublesome disorder, should be attempted by those means which appear to be best adapted to the nature of the particular cause; whether that be of the hysterical kind, or otherwise the result of a debilitated constitution,

Besides the complaints above mentioned, there is a variety of others to which women are liable in the first months of their pregnancy; as vertigo, pains in the head and teeth, a sense of weight and oppression at the præcordia, and a difficulty of breathing, &c. But as all these depend
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on the same general cause with the preceding, namely, on a plethora, they are likewise best relieved, when very troublesome, by the same means which have been already recommended in the treatment of those; *viz.* unloading the vessels, by moderate venæsection and gentle purgatives: and, therefore, to enlarge on each in particular, would only give occasion to tedious and unnecessary repetitions. About the end of the fourth month, or soon thereafter, the disorders of this stage of pregnancy generally disappear along with their cause; since by this time the superfluous blood, which hitherto had given occasion to the complaints of the mother, is mostly required for the nourishment of the foetus.

S E C T. II.

Of the Disorders which are most peculiar to the more advanced Stages of Pregnancy.

FROM the termination of the preceding complaints to the time of delivery, various others are successively produced; according as the uterus, in consequence of its gradual enlargement and different situations, may happen to affect the contiguous parts by its weight and pressure. These complaints generally succeed each other in the following order.

Difficulty, Suppression, and Incontinence of Urine.

WHEN the uterus begins to rise out of the pelvis, which commonly happens about the end of the fourth, or beginning of the fifth month, it is then so greatly distended as to press anteriorly on the *sphincter vesicæ*; by which means, the discharge of the water is often rendered difficult,

difficult, and sometimes absolutely impracticable without the assistance of art. But some women may be affected with this complaint at a much earlier period of gestation; either when the size of the *ovum* is uncommonly large, when the natural situation of the uterus is low, or when the *placenta* adheres to the inferior parts of that organ. It commonly continues, in a greater or less degree, till the body of the uterus has arisen above the brim of the pelvis; and then, the pressure being removed, it ceases of course.

In regard to the cure, gentle diuretics may first be tried, with a view to increase the discharge. The *pilulæ saponaceæ* of the London Dispensatory have often produced good effects in this case. But if, notwithstanding this method, the water still continues to be voided but in small quantity, or if there is a total suppression of it, the catheter ought to be immediately introduced; and the bladder should be
carefully

carefully emptied, from time to time, by the same means, in order to prevent its laceration, and other bad consequences which so frequently arise from the too great accumulation of its contents. Sometimes, however, the pressure is so great as to render the introduction of the catheter difficult ; producing, at the same time, an inflammation, tension, and violent pain of the part, which prove so many additional obstacles to its entrance. In this case, which is commonly accompanied with a degree of fever, the inflammatory symptoms ought first to be subdued, by bleeding, emollient clysters, warm fomentations and baths, repeated, according to particular circumstances, till there is an abatement of the pain, and a sufficient relaxation of the urinary passage ; after which, by gently pushing up the uterus at the same time, the catheter will be made to slip forward, with much more ease to the operator, and far less inconvenience to the patient.

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When none of these bad symptoms appear, but the suppression, though partial, does not yield to diuretics, the woman may be frequently relieved without any other assistance than only raising the uterus with the point of the finger; as by this means the compression on the neck of the bladder is removed for the time, and the water will be pretty freely discharged. But when the complaint threatens to become total, bleeding, gentle laxatives, and a daily use of the catheter, are the most effectual remedies.

If the suppression be owing to a large stone in the bladder, obstructing the mouth of the passage, we can only palliate the disorder, by occasionally thrusting back the offending body with the catheter; nor can any thing else be attempted, till after delivery, when the proper operation for extracting it ought to be performed.

But a total obstruction of the urine is a more frequent, as well as more dangerous symptom

symptom in time of labour, than at any other period. It is then owing to the child's head being so far advanced within the pelvis, as strongly to compress the urinary passage; in which situation if it remains for any considerable time, the obstructed water will, at length, be collected in a very great quantity; and, hence, several bad consequences may ensue. The labour will be necessarily retarded, as the woman dare not force down, on account of the exquisite pain arising from this circumstance; the distended bladder may be ruptured by the powerful contractions of the abdominal muscles; or, at least, its fibres may be so over-strained by the excess of its load, as not to be able to expel its contents for some time after delivery, even if the patient should be lucky enough to escape without any greater injury. To prevent either of these inconveniences, as much as possible, the water should be drawn off by the catheter in the beginning
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of labour, and the same method repeated, during the whole of its progress, as often as occasion requires, or the circumstances of the case will admit. In like manner, a suppression of urine after delivery, arising from the cause just now mentioned, must also be occasionally relieved by the same expedient, till the bladder, having recovered its proper tone, becomes fit for its usual functions; and if any marks of inflammation attend this symptom, they are to be removed by warm emollient fomentations, &c. applied to the region of the *pubes*, and the external parts, together with the use of all other remedies which are commonly found useful on similar occasions.

Towards the end of pregnancy, women are often troubled with a complaint which is the reverse of the former, namely, an incontinence, or involuntary discharge of the urine. This is most frequent with those who have naturally prominent bellies,

lies, and is owing to the too great pressure of the uterus on the body of the bladder. It is a symptom more disagreeable than dangerous in its consequences. It cannot be entirely removed till the woman is delivered, but may be considerably alleviated by suspending the abdomen with proper bandages; by rest, a supine posture, and a light cooling regimen; the patient carefully avoiding the use of liquid aliments, too much drink, but particularly every thing of a hot and stimulating nature, as these tend either to increase the quantity of the urine, or accelerate its discharge.

Costiveness.

ABOUT the same time, the uterus, extending itself in all directions, begins likewise to press against the *rectum*; from whence this complaint is produced. The difficulty of urine generally ceases, as soon as the uterus rises into the abdomen; but the costiveness is apt to remain, more

or

or less, to the end of pregnancy; because the uterus, while it rests on the brim of the *pelvis*, must always exert the same pressure on the beginning of the *rectum*, as formerly on its inferior parts.

This symptom is rarely attended with any unfavourable consequence, unless when the *fæces* have been retained so long, that their rarefied air has greatly inflated the *colon*, and thereby produced severe pains of the bowels, and other colical symptoms. But then, indeed, there is great danger of abortion; as the violent *tenesmus* and straining hence arising, must necessarily subject the uterus to such immoderate degrees of compression, as may at length prove the cause of an untimely birth.

The costiveness may be prevented in the beginning, by gentle laxative medicines frequently repeated, as particular cases may require, to keep the body open, such as lenitive electuary, manna, magnesia,

nesia, and the like. The two first may be given from two drams to half an ounce, and the latter from one to two drams, three or four times a week, according to the degree of the disorder, and the nature of the constitution. If this has been neglected, however, till the complaint has become obstinate by length of time, these remedies alone will not be sufficient to remove it. In that case, it will often be necessary to bleed the patient to the quantity of six or eight ounces, or even more, if she can bear that evacuation; as there may be reason to apprehend a degree of inflammation, from the violence of the pressure. Some emollient clyster ought then to be administered, and even repeated, if occasion requires, in order to dissolve, and thoroughly evacuate the hardened foetus: after which, a due exhibition of the laxatives just now recommended will generally prevent the like inconvenience for the future.

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In general, but especially when the woman is naturally of a costive habit, the diet ought to consist chiefly of spoon meat, and such other aliments as have the least tendency to bind the body.

Hæmorrhoids.

THE preceding complaint sometimes, but more frequently the size and weight of the uterus, by exciting a pressure on the hæmorrhoidal veins, produce those swellings, both external and internal, at the lower extremity of the *rectum*, which are commonly called the hæmorrhoids or piles.

This complaint is seldom dangerous, though generally very troublesome. Rest, lying much in bed, and a reclining posture, contribute greatly to the ease of the patient.

The cure is very little different from that which is commonly used in all other

cases of this kind; only that particular regard ought always to be had to the present circumstances of the patient. Venæsection, and lenient cathartics, with sometimes emollient clysters, are the principal remedies. But in general, the internal hæmorrhoids are more difficult of cure than the external, as being more out of the reach of those topical applications, which may sometimes be found necessary; such as warm fomentations, puncture with the lancet, and a discharge by leeches, &c. though the latter ought always to be used with great caution. It may be of considerable service, in this case, to support the belly by some proper contrivance; as that will take off a part of the pressure which gives occasion to the disease. The same kind of diet is convenient here, as in the preceding article.

Pains in the Back, Belly, and Loins.

PAINFUL sensations are apt to be produced in these parts, either by the general cause already mentioned, namely, the weight and pressure of the uterus, by the too great extention of its ligaments, or by violent straining, and other external injuries. They are seldom dangerous, unless when they proceed from the last of these causes, or are otherwise extremely violent; but, in either of these cases, an abortion may certainly be the consequence.

When the cause is purely natural, the pains cannot be entirely removed, till the woman is delivered; but they may be greatly mitigated, by indulging rest, keeping the body open, and the use of some proper method for supporting the abdomen. If, however, they are so very immoderate as to render the patient restless and uneasy,

bleeding will be necessary, especially in plethoric constitutions; and draughts, with suitable doses of laudanum, ought likewise to be exhibited at bed-time. The same method will also be proper, when external violence is the cause of severe pains; together with some strengthening plaster applied to the small of the back.

Swelling of the Legs, Thighs, and Labia Pudendi.

AFTER the sixth or seventh month, women with child are apt to be troubled with these complaints, especially towards the evening. They are owing to the pressure of the uterus, preventing the free return of the venal blood, and other fluids, from the several parts; by which means their vessels at length become overcharged, and subjected to œdematous and varicose swellings.

These symptoms are seldom attended with any bad consequence, though the skin

is sometimes so excessively stretched as to occasion considerable pain. They cannot be entirely removed till after delivery, when they commonly vanish of their own accord; but in the mean time, they may be greatly palliated. If the swelling be moderate, and only affects the legs, proper bandages, rolled upon these members, or the laced stocking may be used with advantage; together with the administration of emollient clysters, and gentle laxatives, as already recommended in the cure of costiveness. But, on the contrary, if the disorder extends itself to the other parts comprehended under this article, we must then, besides these means, call to our aid venæsection, proportioned to the constitution and strength of the patient: and sometimes also, in violent distentions of the legs and *labia vulvæ*, puncture and scarification will produce good effects, by discharging large quantities of the obstructed serous humours.

The diet ought to be adapted to the particular constitution. In sanguine habits, it should be light, thin, and refrigerant; but, in the opposite circumstances, of a more warm, solid, and strengthening kind. Rest, and a recumbent posture are always conducive to the mitigation of the symptoms, and the relief of the patient.

Vomiting, Difficulty of Breathing, and Cough.

THESE complaints, which we have already observed to be usual symptoms in the beginning of pregnancy, are likewise apt to recur towards the end of the reckoning; but here, they are owing to a different cause. The vomiting proceeds from the extraordinary compression sustained by the stomach, in consequence of the great distension of the uterus at this period of gestation; the *dyspnœa*, from the same degree of pressure acting against the

2 diaphragm.

diaphragm, and thereby diminishing the cavity of the *thorax*, so that the lungs cannot be sufficiently expanded in time of inspiration; and, from this last circumstance, and the consequent obstruction of the blood in the pulmonary vessels, a stimulus is apt to be excited, which frequently produces a cough.

The method of cure, diet, and regimen, already recommended on similar occasions, are generally the most proper in these cases likewise. If the vomiting continues obstinate, however, opiates will often abate its violence, after all other means have failed. When the difficulty of respiration and cough are immoderate, the patient, while in bed, should have her head considerably raised, an erect posture being always the most convenient in this case; mild pectorals ought to be used, and phlebotomy repeated, according to the constitution, and particular emergen-

cies. In all these complaints, a gentle compression of the abdomen, from above downwards, may often be of service. But this ought not to be over-done; as too strait ligatures may produce other inconveniences, no less troublesome in their effects than those they are intended to remove.

Flooding and abortion are likewise frequent, and sometimes fatal incidents in pregnancy. But, as these may happen indifferently at any period of gestation, and could not, therefore, be so properly ranged under either of the two foregoing sections, we have purposely reserved them for a separate discussion.

Flooding.

SOME women have a regular appearance of the *menfes*, for the first three or four months after conception; and others, through the whole of their time. But
these

these instances are exceedingly rare, and are chiefly owing either to too great a quantity of blood, or a weak state of the containing vessels; or, in other words, to a plethoric, or relaxed habit of body. In the former of these cases, bleeding, with a spare and cooling diet, is useful; while every thing that strengthens the system, either as food or medicine, agrees best with the latter.

There can be no great hazard of mistaking this discharge for a flooding, as there are certain characters by which they may be easily distinguished. The *menfes* of pregnant women still keep an appearance of regular periods, and are always less in quantity than the natural discharge; whereas, a flooding is either continual, or observes no periodical returns, and it is likewise much more profuse. Besides, a flooding is generally attended with a considerable degree of pain, and, after it has intermitted for some time, is apt to be renewed

renewed by the slightest accidents ; neither of which is the case with the more regular flux. A flooding, then, may be properly enough defined, a continual, or, at least, a too frequent, and too copious discharge of blood from the vessels of the uterus accompanied with pain, and subject to irregular returns.

The immediate cause of a flooding is a separation of the placenta, in a greater or less degree, from the internal surface of the uterus ; and this again may be owing to any accident that considerably increases the force of the circulation, or otherwise affects the uterus itself in such a manner as to throw it into unusual contractions. In general, the vehement passions of the mind, sudden surprises, violent shocks, falls, strains, and blows upon the belly, with other external injuries, are all frequent causes of this effect. But nothing is more apt to produce it than the several disorders above described,

described, when they happen in any violent degree ; as severe retchings to vomit, hard coughing, and much straining at stool, &c. Hence, as few pregnant women are entirely exempt from one or other of these complaints, may likewise be deduced the reason of the frequent return of the flooding. For the suspension of the discharge being chiefly occasioned by grumous concretions obstructing the *os internum*, the same efforts, which might be sufficient, at first, to detach the *placenta*, will still more easily, afterwards, remove those *coagula*, and thereby often restore the flooding with greater violence than before. Nay, the least motion of the body will sometimes revive it.

This symptom is seldom free from danger, both to the mother and her child ; though that is always more or less, according to the particular term of pregnancy, and the proportion of the separated *placenta*. In the first four or five months,
the

the danger is least, but increases daily afterwards, on account of the greater dilatation of the blood vessels, as the woman approaches to her full time. The same rule likewise holds good, in regard to the magnitude of the detached *placenta*; as the flooding, and consequently the danger, will vary, according as fewer or more of the uterine vessels are left uncovered by that accident, at whatever time of pregnancy it happens. When the flooding is very violent, or has continued long, it often throws the patient into faintings and convulsions, which sometimes prove mortal.

The first appearance of a flooding ought always to alarm us, and therefore every proper endeavour to restrain it, should speedily be pursued. But as the method of cure, suitable in this case, coincides so nearly with that already recommended, in the former part of this work, for the *immoderate flux of the menses*, it would be superfluous

fluous to swell this article with a repetition of the same rules, remedies, and cautions ; and therefore, without any further apology, we shall refer the reader to the chapter on that subject.

If, after all our endeavours, however, the flooding continues till the patient becomes exhausted and faint with loss of blood, her life is in imminent danger ; and therefore, her delivery ought to be attempted without loss of time, that the uterus may have freedom to contract. This is to be performed, by first extracting the foetus, and then the secundines, according to the rules laid down for that purpose by the professors of the obstetric art. It is always a difficult, and often a hazardous operation ; but it is the last and only resource for saving the patient in so critical circumstances.

Abortion.

Abortion.

A premature birth of the foetus is commonly called an abortion or miscarriage. It may happen at any time of pregnancy, and proceed from a flooding, or any of the various causes productive of that discharge; but particularly, from the complaints of the mother, as has been already often noted in their description, &c. The danger attending this accident is always least in the first months; because the smaller size of the foetus at that time obtains an easier passage through the *os internum*: and likewise, because the flooding, then, is never so profuse as afterwards.

When a woman with child is seized with irregular pains in the back and belly, accompanied with strong alternate contractions and relaxations of the abdominal muscles, and a frequent forcing down, as in true labour, there is great reason to apprehend

apprehend an abortion. To prevent such a misfortune, the patient should immediately be put to bed; all motion ought to be avoided, and the mind kept perfectly at ease. If plethoric, she ought to be bled; and that operation to be repeated occasionally, according to particular indications. In general, opiates are indispensable in this case, for allaying the pains; as nothing can prove effectual till the irritation is abated. Astringent remedies, both external and internal, are likewise to be used, as circumstances shall direct.

But, to be more particular, the cure and regimen must always be adapted to the principal cause of the complaint. If it seems chiefly to depend on vomiting, coughing, violent strainings from costiveness, or the longings of the mother, &c. these symptoms must be abated by the several methods already proposed for the treatment of each. Again, when an
abortion

abortion is threatened, from an *hypercatarsis*, induced by too stimulating purgatives, from a *tenesmus*, or continual irritation of the *rectum*, or lastly, from convulsions, the method of cure must be varied accordingly. The two former are to be treated by opiates, suitable balsamic and mucilaginous medicines, with soft oily clysters, &c. and the latter, by bleeding, blisters, and other appropriated remedies.

When, notwithstanding all attempts to the contrary, the pains and other symptoms continue to increase to such a degree, that an abortion appears inevitable, the woman should receive the necessary assistance with all possible expedition. If, after she is delivered, any profuse hæmorrhage or flooding should ensue, it is to be treated in the manner hereafter described in similar cases succeeding natural labours. And, in short, the several supervening symptoms whatever they may be, require exactly the same treatment,

both

both in regard to diet and medicines, with those of the same kind, which may happen to occur in ordinary cases.

False Conceptions and Moles.

WHAT is commonly distinguished by these appellations, is a shapeless mass of matter, partly of a membranous and partly of a fleshy appearance, of which women are sometimes delivered, with pains and other symptoms resembling those of real labour. It is always owing chiefly to coagulated blood, either in consequence of abortion or obstructed *catamenia*, and not, as some have imagined, to an imperfect generation.

If the foetus dies in the first two or three months after conception, it is soon dissolved, on account of the soft gelatinous consistence of its parts; and, in that state, often passes through the *os internum*, without being perceived. But the *placenta* and membranes frequently remain behind for a

Z considerable

considerable time longer, acquiring a daily increase from the firm adhesion of the uterine blood round their whole surface; and when this substance is afterwards discharged, especially within the fourth month, it commonly obtains the name of a false conception, as containing no rudiments of a foetus: but, after that period, it is more usually denominated a mole.

There have been instances of women who have gone with moles for several years. They are most common, however, with those who are in the decline of life, on account of the great obstructions to which such women are liable, from the irregularity of their periods; in consequence of which, the retained blood being strongly pressed by the action of the uterus, its ferous parts are forced off, and the fibrous portion is compacted into a firm substance of a fleshy appearance. That this is the most common cause of the
production

production of moles, seems to be pretty evident, from many accurate observations.

A mole very much resembles the gravid uterus, yet they may be distinguished with some degree of precision. In the former case, the belly is much harder than in pregnancy, along with a greater sense of weight and pain; the breasts are less turgid, and contain little milk; the spirits are lower, and the looks more faded; the woman in general is much more disordered; and there is no perception of motion in the uterus. These symptoms, it is true, are liable to some uncertainty, both as they may vary considerably in different constitutions, and likewise, as it is not easy to ascertain their exact proportion in any; but no doubt can remain that the woman is not pregnant, if they continue the same after the usual term of gestation.

When a woman is threatened with a miscarriage, as it is called, of a false conception

ception or mole, the symptoms are generally the same with those which precede natural labour. The treatment, therefore, and the assistance, when any is necessary, must be similar; and the recovery of the patient, after she is delivered of her burden, must likewise be promoted by the same means which are commonly used for child-bed women.

C H A P. XV.

Of other Diseases sometimes attending
PREGNANCY.

THE disorders above described, which naturally result from the very condition of pregnancy, are sometimes liable to be complicated with others, proceeding from different causes, and equally incident to women at any other time. Those which have been chiefly mentioned by authors, are, the *fluor albus*; *gonorrhœa* and *lues venerea*; dropfies of various kinds, as of the *thorax*, *abdomen*, and *uterus*; hernias, or ruptures; nephritic and calculous complaints, diarrhœa, &c.

As some of these diseases produce the same kind of symptoms with the gravid uterus, their co-operation must greatly aggravate particular complaints. Thus, gravel or small stones in the kidneys, con-

spiring with the pressure of the uterus, will necessarily increase the usual pains in the back and loins; and the difficulty of breathing must be vastly augmented, by large collections of water, or other matter, in the abdomen or thorax, occasioning an additional compression on the organs of respiration. Others, again, produce different effects; a venereal taint is communicated to the fœtus, and a large stone in the bladder obstructs its birth.

Most of these diseases admit chiefly of palliation during pregnancy; but when a radical cure is thought advisable in particular cases, it is to be prosecuted in much the same manner as at other times, only that every degree of irritation ought carefully to be avoided.

C H A P. XVI.

Of the Diseases of CHILD-BED WOMEN.

TH E complaints to which women are liable in the various stages of pregnancy are often succeeded by others, of a more acute and dangerous nature, at the termination of that period. Most of these, however, depend more upon unfavourable accidents, than on any alteration produced in the animal œconomy. The first and most important in this class of diseases is flooding.

Of Flooding.

BY flooding is understood a copious discharge of blood from the uterus, which follows either immediately, or a short time after delivery; and of all the various hæmorrhages of that organ, its violence is to be most apprehended, on account of the patulous state of the vessels with which the *placenta* had lately been in connexion.

This evacuation is generally of a grumous consistence, and, when continued beyond the term of its natural duration, is supported either by a partial adhesion of the *placenta*, clots of blood remaining in the uterus, or some violence sustained in delivery.

A flooding is always more or less dangerous in proportion to the degree and continuance of the discharge, and the strength of the patient; but when the pulse becomes weak and low, and faintness, syncope, or convulsions, supervene, there is reason to dread a fatal consequence.

If an adhesion of part of the *placenta*, or grumous clots of blood in the uterus, be the cause of the disorder, the common method of cure is to endeavour to exclude them by the use of gentle emmenagogues, as borax, gum ammoniac, myrrh, &c. to which some sperma ceti is usually added. But where the flooding is violent,
this

this method is too slow of operation : nor can emmenagogic medicines be safely administered in such a quantity as to overcome an obstinate resistance of the offending cause. If, therefore, the disorder should be very violent, or we have reason to think that it will not be speedily remedied by medicines, the *placenta*, or grumous blood, ought to be gently extracted with the hand, as soon as possible.

Where the disorder is owing to any hurt sustained in delivery, or the extraction of the *placenta*, and the woman is restless, a paregoric ought to be immediately given, to abate the irritation, and be repeated as occasion requires ; while during the intervals, the contraction of the uterine vessels should be promoted, by taking frequently a few drops of spirit of vitriol in any suitable vehicle. This medicine is also serviceable by contributing to keep the patient moderately cool, which is a caution that ought never to be neglected.

If

If the woman be of a plethoric constitution, and the pulse full, it will be advisable to draw some blood from the arm; after which, if the flooding continue, recourse must be had both to internal and topical astringents.

It often happens that the flooding is supported by a collection of indurated fæces, or flatulence in the bowels, obstructing the regular circulation of the blood through the uterus. In this case no remedies whatever can avail, without the previous use of lubricating, gently purgative, and carminative clysters, which should be repeated as often as there is occasion. It is an indispensable rule in all floodings, never to bind the abdomen too tight, as nothing is more injurious than much pressure. Through the course of the disorder, the patient should be kept rather moderately cool than warm, and rest should be indulged by the occasional use of paregorics.

CHAP.

C H A P. XVII.

Of a Suppression or Obstruction of the
LOCHIA.

AS soon as the *placenta* is separated from the uterus, there follows a discharge of fluids from the vessels of that organ, occasioned by the dilatation which they have suffered during the time of pregnancy. This discharge is termed the *lochia*, and the right procedure of it is a matter of the greatest consequence for the recovery of child-bed women.

For some days after delivery, the evacuation consists of pure blood, till, by the contraction of the vessels, and the increase of milk in the breasts, it gradually becomes serous, and less copious, and generally ceases in the space of a fortnight or little more; the quantity of the flux, even when it proceeds in a regular natural manner, being variable in different women, or on different occasions, according to
their

their constitution, the heat of the climate, the difficulty of delivery, and other circumstances.

The most common cause of the suppression is either a diarrhœa, or the catching of cold, and especially the unwary admission of cold air to the extremities of the uterine vessels soon after delivery. It is likewise often occasioned by imprudently drinking cool liquors; and I have known several instances of its being suddenly produced by violent affections of the mind. It is in general more the consequence of some external accident unfavourable to pregnant women, than of any inward and inevitable cause.

An obstruction of the *lochia*, from whatever cause it proceeds, is usually productive of acute and dangerous disorders, such as fevers, inflammations, convulsions, &c. It is always the more alarming, the longer it has continued, and the sooner it supervenes upon delivery; for after the
flux

flux is somewhat abated, and its consistence becomes more serous, the symptoms attending a suppression are not only less violent, but, for the most part, more easily remedied.

The disorders arising from lochial obstructions, admit of such various means of solution, that there is scarce any kind of evacuation which has not frequently been attended with remarkable benefit in them; and an attention to these critical discharges is of the greatest importance in leading us to the proper method of cure. I have generally observed a spontaneous hæmorrhage to be the salutary evacuation most commonly made use of by nature in the beginning of these disorders, especially in pregnant women; but where the *lochia* have proceeded regularly for the first four or five days after delivery, the diseases, consequent to an obstruction, are more often relieved by an increase of some
of

of the natural discharges. A diaphoresis, however, is generally found to be advantageous in every stage of these complaints; and the same may be said of a diarrhœa, when it has not made its appearance previous to an obstruction of the *lochia*.

In plethoric women, or wherever the pulse is full, bleeding ought to be performed immediately upon a suppression of the *lochia*, and it is generally the more requisite the sooner the suppression has taken place. The feet, in this case, as well as in obstructions of the *menfes*, appear to be the most suitable parts for the operation. Frictions of the lower extremities, and the application of cupping-glasses round the region of the uterus, are here likewise adviseable.

Where the suppression is not attended with a diarrhœa, a clyster should afterwards be ordered; but it ought to consist of emollient and emmenagogic, rather than

than of purgative materials, as the intention of it is chiefly to relax the uterus, and recall the discharge of the *lochia*. Emmenagogic clysters have also this circumstance in their favour, that they can be used with less danger than internal medicines of that class, when a fever supervenes. The following is well adapted to the purpose.

℞ Fol. Artemisiæ.

Pulegii.

Rutæ.

Flor. chamæmeli ana semi-manipulum.

Rad. aristoloch. long. semunciam.

Coque in aq. fontan. q. s. & colaturæ

unciis octo adde ol. olivar. unc.

unam. m. f. enema.

In the mean time myrrh, borax, and such like emmenagogue medicines, may be taken every four or five hours, with some mild antihysterical julep. To the above remedies, I have frequently added

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some

some nitre, with advantage, where there appeared any signs of inflammation.

When a diarrhœa supervenes, in consequence of an obstruction of the *lochia*, great caution is requisite in avoiding to check it too suddenly, as such a practice has often been productive of violent inflammations of the uterus, and other fatal effects. A moderate diarrhœa, where the *lochia* are suppressed, if it be not really a critical discharge, tends at least to mitigate, or prevent, many alarming symptoms, to which women, in these circumstances, are exposed. If the looseness, however, should be so violent, or continue so long, as to weaken the patient, it ought undoubtedly to be restrained; but never precipitately without the previous administration of rhubarb, along with which a few grains of some mild emmenagogue may be given.

Injec-

Injectiōns into the uterus, and warm fomentations to the abdomen, are frequently prescribed for removing obstructions of the *lochia*. I think, however, that the former of these applications, as well as the latter, ought to consist rather of emollient than emmenagogue materials, as an irritation of the uterine vessels might here be productive of pernicious effects.

When the flux of the *lochia* is restored, the symptoms which had accompanied its suppression generally soon disappear ; but if any complaints remain, they are to be treated in the same manner with the diseases to which they belong ; care being taken, that no remedy be made use of, which might diminish that natural evacuation.

During all obstructions of the *lochia*, it is absolutely necessary that the patient be confined to bed, both to prevent the access of cold air to the vessels of the uterus, and support a regular perspiration, which is of the greatest advantage in these complaints. The aliments ought to consist

chiefly of the more liquid kind, and such as are suitable in acute disorders. Whatever is drank should be warm ; and a little warm wine, or cordial, may now and then be allowed, if no signs of inflammation appear.

C H A P. XVIII.

Of the immoderate Flux of the LOCHIA.

THE quantity of the *lochia* is so variable in different women, according to the particular circumstances of the solids and fluids, that no determinate measure of the evacuation can be fixed as a standard in all constitutions ; and the only criterion by which we can judge the flux to be immoderate, in point either of violence or duration, is when it has evidently much weakened the patient. In that case, the pulse becomes low, weak, or intermitting, and the woman is frequently seized with faintings, convulsions, and pains in the abdomen.

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The general causes of an immoderate flux of the *lochia*, may be either too great a laxity of the uterine vessels, or a thin and acrimonious state of the blood. When the former is the case, astringent medicines are the most suitable for abating the disorder. The following julep has been advantageously used for this purpose.

℞ Coral. rub. præp. drachmas duas.

Aq. cinnamon. f. v. uncias tres.

fortis unciam unam.

Syr. e rosis sic. drachmas sex. M.

Capiat ægra cochlearia duo frequenter.

When the patient appears to be scorbutic, or the flux betrays any thing of a foetid smell, the Peruvian bark ought always to be joined with these remedies.

If astringents taken internally should fail of contracting the vessels of the uterus in such a manner as to restrain the violence of the evacuation, we must have recourse to the assistance of the same external applications which are proper in other immoderate discharges from that organ,

and have been already recommended in the excess of the catamenia.

If there is reason to apprehend that the flux proceeds from an acrimony of the fluids, which is frequently a concomitant cause of the disorder, especially where the patient has not been previously subject to immoderate discharges from the uterus, the use of opiates is strongly indicated, and they ought to be administered from time to time during the course of the disorder. For though it be generally allowed that they diminish the contractile power of the solids, yet nothing more effectually restrains those discharges which proceed from local irritation, and their relaxing quality may be counteracted, by prescribing along with them astringent and gentle cordial medicines.

The regimen in an immoderate flux of the *lochia*, should in general be the same that is usual with women in child-bed. The patient, however, ought not to be kept too hot, neither ought sleep to be indulged

dulged beyond such a degree as the weakness of the patient may require. Lastly, The aliments should be rather of a moderate than a liquid consistence: for women, whose strength has been much reduced by the evacuation, are, for some time after their recovery, usually subject to dropical symptoms, which ought to be prevented as much as possible, by avoiding an injurious diet.

C H A P. XIX.

Of CONVULSIONS.

CONVULSIONS in child-bed women appear to arise from an irritation of the uterus, which is usually produced by one or other of the following causes, viz. a violent extraction, or retention, of the *placenta*, a collection of grumous blood, or a stoppage of the *lochia*.

This disorder is in general more alarming than fatal, and the danger is to be estimated from the degree in which it exists,

the time of its continuance, and the strength of the patient's constitution.

In curing convulsions strict regard must be had to the particular cause which excites them. When they proceed from a violent extraction of the *placenta*, and a consequent flooding, which of all the causes that have been mentioned is the most dangerous, astringent injections into the uterus ought immediately to be administered, as the speediest and most effectual resource.

If the vessels of the uterus have been only slightly injured, and no considerable hæmorrhage ensues, anodyne injections are the topical applications to be made use of.

When a retention of the *placenta*, or a collection of grumous blood, is supposed to be the cause of the convulsions, these extraneous substances ought to be gently extracted with the hand. The discharge of the former may also sometimes be assisted by sternutatories, and of the latter by detergent injections.

If a premature and sudden stoppage of the *lochia* has given rise to the disorder, the return of that flux is to be solicited by the methods which have been formerly recommended.

In all convulsions, where the patient is plethoric, those only excepted which are the consequence of immoderate evacuation, bleeding is adviseable, not only for relaxing the vessels of the uterus, and thereby diminishing their irritability, but also for preventing the injurious effects which might arise from the violence of the convulsive motions. Antiepileptic medicines, and opium, are likewise to be prescribed; the last of which is superior to every other remedy when the disorder is caused by irritation. In using opium for this intention, however, it ought rather to be prescribed in small quantities, and repeated occasionally, than administered in a larger dose at once; as, when given with too liberal a hand, it is sometimes productive of the same disorder.

C H A P. XX.

Of the PUERPERAL FEVER.

THIS species of fever, as its name imports, is peculiar to women in child-bed, and is usually the most fatal of all the disorders to which they are exposed. Notwithstanding the great prevalence of it in all ages, however, its real genius has remained, to the present times, a subject of much dispute and uncertainty. The critical period of its invasion, when febrile commotions are apt to be excited by various accidents, and the equivocal symptoms which accompany it, have even afforded ground for questioning whether it is a primary or secondary disease. Some authors have considered it as proceeding entirely from an inflammation of the uterus ; others have imagined it to be the consequence of an obstruction to the secretion of the milk ; while the greater number have been inclined, for reasons equally, if not more plausible, to impute it to a
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suppression of the *lochia*. If we examine this fever attentively, however, according to its natural course, and independent of all the accidental concomitant symptoms with which it is not essentially connected, we may safely pronounce it to be a primary disease, of a particular characteristic, and, perhaps, the necessary consequence of none of the causes above-mentioned.

The puerperal fever is most generally incident to women within forty-eight hours after delivery, though it may likewise supervene on the fourth or fifth day, and sometimes considerably later. It is preceded, like other fevers, by a rigor, which is usually violent, and when happening during the time of labour, may be confounded with the pains of parturiency. This fever, in its earlier stage, is attended with the signs of inflammation. A great pain is felt in the back, hips, and the region of the uterus; which, in the part last mentioned, is accompanied with the sense of heat and throbbing; a sudden change
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in the quality or quantity of the *lochia*, now also takes place. The patient is frequently troubled with a *tenesmus*; and the urine, which is very high coloured, is discharged in small quantity, and with pain. At the first attack of the fever, the woman is generally seized with a vomiting of porraceous matter, as in the *cholera morbus*, to which disease it then bears a strong resemblance. Instead of this symptom, there is sometimes only a *nausea* or loathing of the stomach, with a disagreeable taste in the mouth. The belly swells to a considerable bulk, and becomes susceptible of painful sensations from the slightest impression. The tongue is generally dry, though sometimes moist, and covered with a thick brownish fur. When the fever has continued a few days, the symptoms of inflammation usually subside, and the disease acquires a more putrid form. At this period, if not at the very beginning of the disorder, a bilious or putrid diarrhœa, of a dangerous and obsti-

nate nature, supervenes, and accompanies it through all its future progress; each motion to stool being preceded by a temporary increase, and a subsequent alleviation, of pain. The patient usually nauseates all kinds of food and drink, except what is cold and acidulated. A brown or blackish fœces, the consequence of putrid exhalations, adheres to the edges of the teeth. A troublesome hiccup is at length produced, which greatly exasperates the pains of the abdomen. *Petechiæ* or *vibices* also appear, with sometimes a miliary eruption, but which produces no mitigation of the disease. Through the whole course of the fever, the patient is affected with great anxiety, and dejection of spirits.

Such in general is the ordinary course of the puerperal fever; the symptoms of which, however, may be often varied, according to the constitution of the patient, the degree of the disease, and its earlier or later invasion. When the woman

man is naturally weak, or her strength has been greatly reduced by immoderate evacuations after delivery; when the disease is violent, and immediately follows that period, its progress and termination are proportionably rapid and fatal. In such unfortunate circumstances, many have been known to expire, within twenty-four hours from the first attack of the disease: nay, there are some instances where the very rigor has concluded the scene. The catastrophe, however, is for the most part suspended for some days; and the number of these is variable, though the eleventh, from the commencement of the fever, may justly be fixed as the period which is generally decisive. In whatever stage of the disease an unfavourable termination may occur, it would appear, that the commencement of the patient's recovery is not marked by any critical revolution of the fever, as depending on an alteration of the humours; but that the cure is gradually effected, either by a spontaneous vomiting,

or a long continued discharge, by stool, of that porraceous matter, the existence of which, in the stomach, is usually evinced at the first attack of the disease. The most unfavourable prognostic, therefore, arises from such a weakness of the patient as renders her unable to support under so tedious an evacuation as that by which the disease is overcome. When the *lochia* return to their former state, when the swelling and tenderness of the abdomen abate, and there is a moisture of the skin, we have reason to hope for a happy termination of the disease.

Though the puerperal fever may generally be ascertained from the description which has been given, and chiefly by that remarkable tenderness of the abdomen, which particularly distinguishes it; yet, as some of its symptoms may be confounded with those arising from other diseases, and which require a different method of cure, it will be proper to mention here the circumstances

cumstances whereby it may be known with greater certainty.

The pains of the abdomen, attending the puerperal fever, may be distinguished from those called after-pains, by their uninterrupted continuance through the course of the disease, though sometimes they suffer exacerbations; whereas, in the latter, they often totally intermit. They are also distinguishable by the absence of fever, with concomitant symptoms in the one, and their evident existence in the other.

Many circumstances evince a dissimilarity betwixt the puerperal and miliary fevers, notwithstanding the symptoms of anxiety and oppression are common to both; in so much that the nature of the approaching disease may be ascertained at the very commencement of its attack. In the puerperal fever, the rigor is more violent, of longer duration, and not interrupted, as in the other. The pulse is fuller and stronger, the skin is more hot,
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the tongue, whether moist or dry, though it is generally the latter, is not of a white, but brownish appearance, and the urine is also high coloured. Eruptions, which are critical in miliary fevers, procure no mitigation of the puerperal, and cordials generally increase it.

When the original attack of the puerperal fever happens to coincide with the febrile commotion which is excited in child-bed women by the milk, the nature of it may at first be misapprehended; but the concomitant symptoms, and greater violence of the disease, must in a short time dissipate such an error.

From all the most accurate accounts of this disease, and from the period at which it generally commences, there is reason to conclude, that it owes its rise more immediately to accidents after delivery: for it is allowed that it may follow a labour under the best and most desirable circumstances, though endeavours to dilate the

os internum are supposed frequently to produce it. The more immediate causes generally assigned by authors are, a stoppage of perspiration, too free use of spices, and the neglect of procuring stools after delivery; sudden frights, too hasty a separation of the *placenta*, and binding the abdomen too tight. The putrid appearance, however, which this disease so soon assumes, affords ground to suspect, that the pre-disposing cause of it is a vitiated state of the humours; for it is generally observed to be most prevalent in an unhealthy season, and among women of a weakly and scorbutic constitution. Dr. Denman, to whom the public is much indebted for his judicious treatise on this disease, seems to be of opinion, that it may derive its origin either from a redundancy or too great acrimony of the bile, the secretion of which appears to be much interrupted in the time of gestation; and it is indeed highly probable that such a cause contributes greatly to produce the disease, especially where the putrid tendency

dency of the humours is increased by unwholesome air and diet.

No disease whatever has more divided the sentiments of physicians, in regard to the method of cure, than the puerperal fever. The apparent indications and contra-indications of bleeding, and other remedies, arising from the complication of inflammatory and putrid symptoms; the equivocal appearance of the vomiting and purging, as whether they are critical or symptomatical; and the different causes from whence symptoms similar to each other may arise in pregnant women; all these circumstances conspire to involve the subject in great obscurity and indecision. If we diligently attend to the several characteristics of the disease, however, so as to be able to distinguish it from every other puerperal complaint; and observe, at the same time, the usual manner of its declension, our judgment may be guided in the method of cure by the salutary

efforts of nature. But, in order to have a clearer view of the genuine indications, it will be proper to consider them under the several lights in which they have been generally agitated by authors.

One of the most essential points to be ascertained, in the cure of the puerperal fever, respects the propriety of bleeding. A free use of the lancet has been generally regarded as the most successful expedient in practice ; and there are some instances of critical hæmorrhages which would appear to confirm its utility. But I think I may safely affirm from experience, that for one who will be benefited by large bleeding, a much greater number will be injured, and that even almost irretrievably. Nor can this seem at all surprizing, when we consider the situation of child-bed women. In most, the evacuations consequent upon delivery are sufficient to diminish any undue superabundance of the fluids ; and if, as frequently happens, the

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disease

disease be produced by too hasty a separation of the *placenta*, the consequence of which is generally a very copious discharge of blood; can we ever suppose that nature will be assisted in overcoming the febrile commotion, by the farther evacuation of the vital fluid, through the defect of which she is now rendered unequal even to the ordinary support of the animal œconomy? I may appeal to every practical physician, how much he has known the pulse to sink, and what a train of nervous symptoms he has observed to succeed an excess of the discharge above-mentioned. Besides, it is an axiom in physic, that a remedy which cures any disorder, will always prove a prophylactic against it; and therefore if bleeding were the proper cure in the puerperal fever, the disease ought to have been prevented by a large evacuation of blood, when that happened previous to its seizure. Experience, however, in this, as in all other diseases, is the only unerring guide we

can follow; and whoever carefully regulates his practice by fact and observation, will be convinced that bleeding, especially in a larger quantity, is, in general, very far from being attended with success. I am, indeed, so sensible of this fact, that for several years I have seldom advised bleeding, except in women of plethoric constitutions, and in whom the signs of inflammation rose high: nor even in such patients, ought it to be repeated without great caution, and the existence of strong indications. Bleeding, when recurred to in proper circumstances, may unquestionably palliate the fever, but that it often shortens the duration of it, appears to me to be a matter of much doubt; and the practice, on that account, becomes still more suspicious and exceptionable, when we consider that by venæsection improperly used, the person's strength may be so far reduced, as not to support the tedious looseness by which the disease is generally carried off. Though bleed-

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ing, however, ought in general to be used with great caution, there are certainly many cases in which it is both necessary and advantageous.

The genuine nature and effects of the looseness, in this disease, is another controverted point of the highest importance, and which merits the most attentive inquiry. Physicians, observing that women who die of the puerperal fever are generally molested with that evacuation, have been induced to consider such a symptom as of the most dangerous and fatal tendency, and what, therefore, we should endeavour, by all possible means, to restrain. In this opinion, however, they would seem to have been influenced by too partial an observation of facts. For experience certainly authorizes the assertion, that more women appear to have recovered of the puerperal fever, through the intervention of a diarrhoea, than have been destroyed by that cause. If it also be considered, that purging is usually

the almost only sensible evacuation in the more advanced stage of the disease, and is that which accompanies it to its latest period, we shall have the strongest reason to think, that it is critical, rather than symptomatical, and ought, therefore, to be moderately supported, instead of being unwarily restrained. Nay, the advantage which is found to attend vomiting as well as purging, in the earlier stage of the disease, would seem clearly to evince, that the matter discharged by those evacuations is what chiefly foment the disease. And, indeed, experience so fully convinces me of the benefit arising from the use of emetic and purgative remedies, in the puerperal fever, that I think they are the only medicines on which any rational dependence is to be placed; at least, they are certainly such as I have found the most successful. It is an established rule in practice, to prescribe a vomit at the beginning of every fever, attended with any nausea or loathing of the stomach, and
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where there is not any reason to apprehend an inflammation of that organ. Nor does the state of child-bed women afford the smallest ground for prohibiting our recourse to the same expedient, in answering a similar indication. I shall now proceed to treat more particularly of the method of cure, which I have found most successful.

A physician is so seldom called during the rigour preceding the puerperal fever, that he has few opportunities of trying the effects of remedies at that early stage of the disease. When such occur, however, we should endeavour as much as possible to shorten and abate that period, as the succeeding fever is generally found to bear a proportion to the violence and duration of it. For this purpose, warm diluting drinks should be plentifully used, with a small quantity of volatile spirits, or brandy. Where I apprehend such an accident, I have sometimes ordered the nurse to give immediately a dish or two

of warm sack whey, taking care that it was not too strong, which is a caution that ought always to be remembered. For though a freer use of the more cordial and spiritous kinds of liquors might perhaps sooner abate the rigor, there is danger to be feared from their influence on the approaching fever, especially in women of a strong and healthy constitution. In all cases, warm applications to the extremities, such as heated bricks, towels, or toasted grains in a linen bag, may be used with perfect safety, and some advantage.

When the hot fit is advanced, the first thing I commonly ordered, is some emollient injection, as chicken-water, or water and milk, which ought to be frequently repeated through the course of the disease. These prove beneficial, not only by promoting the discharge from the intestines, which seems in fact to be the solution of the disease, but also by acting as a kindly fomentation

fomentation to the uterus, and adjacent parts ; and in this intention they are particularly serviceable when the *lochia* are suppressed. Great care, however, is requisite in administering them, on account of the tenderness, and inflammatory disposition, which at that time render the parts in the pelvis extremely susceptible of pain.

The next step in the method of cure, ought to be to promote the discharge of the morbid matter, both by the stomach and intestines. I used formerly to answer these intentions separately, and prescribing first a moderate dose of the tincture of ipecacuan, to unload the stomach, had afterwards recourse to gentle purgatives. If the patient was affected with a nausea at the time when I was called, the emetic generally operated well, and I seldom found it necessary to repeat it above once through the course of the disease. Where that opportunity, however, had passed, I prosecuted

prosecuted still the same intention; and though the evacuation was not then so free and copious as when assisted by the efforts of nature, it never failed to abate the disease. The vomiting was generally succeeded by a diaphoresis, and the discharge of a few stools, which were greenish, frothy, and foetid, and were daily promoted by gentle purgatives. By this method the swelling of the abdomen gradually abated, the *lochia* returned to their former state, and all the febrile symptoms assumed a milder and more favourable aspect.

Since the publication of Dr. Denman's judicious treatise on this subject, I have had frequent opportunities of prescribing the medicine which he recommends; and, from its speedier operation, and greater tendency to increase perspiration, I must own that I think it the most eligible method of practice. The following is the medicine he uses.

R Tar-

℞ Tartar. emetic. gr. ij.

Ocul. cancror. præp. ℥i. intime
misceantur.

“ Of a powder thus prepared, says he, I
“ give from two to six grains, and I
“ repeat it as circumstances require. If
“ the first dose does not procure any sen-
“ sible operation, I repeat it in an in-
“ creased quantity at the end of two
“ hours, and proceed in that manner;
“ not expecting any benefit but from its
“ sensible evacuation.

“ Should the disease be abated, but
“ not removed, (which sometimes hap-
“ pens) by the effect of the first dose,
“ the same medicine must be repeated,
“ but in a less quantity, till all danger is
“ over. But if any alarming symptoms
“ remain, I do not hesitate one moment
“ to repeat the powder, in the same quan-
“ tity as first given; though this seldom
“ is necessary, if the first dose operates
“ properly.

“ It

“ It is to be observed, proceeds he,
 “ that as the certainty of cure depends
 “ upon the proper repetition of the me-
 “ dicine, the method of giving it at
 “ stated hours, does not appear eligible.
 “ If the first dose produces any consider-
 “ able effect by vomiting, procuring stools
 “ or plentiful sweating, a repetition of
 “ the medicine, in a less quantity, will
 “ seldom fail to answer our expectations;
 “ but great judgment is required in a-
 “ dapting the quantity first given to the
 “ strength of the patient and other cir-
 “ cumstances. We are not to expect
 “ that a disease which from the first
 “ formation carries such evident marks
 “ of danger, should instantly cease, even
 “ though a great part of the cause be
 “ removed.”

Along with these medicines, especially
 after a vomit has been administered, fre-
 quent doses of the saline draughts ought
 also to be given, which not only promote
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the evacuation by the intestines, but likewise increase the salutary discharges of urine and perspiration. These medicines are particularly serviceable in subduing the remains of the fever, after its violence has been broken by the more efficacious remedies above recommended; but when they are used even in the decline of the disease, gentle laxatives of rhubarb and magnesia, as advised by Dr. Denman, ought to be frequently interposed, since, as he justly observes, without stools we can do little service.

Notwithstanding the discharge by the intestines appears to have the most salutary effect in this disease, yet when the stomach has not been properly unloaded of offensive matter, though a great nausea and sickness had indicated the expediency of such an evacuation at the beginning of the fever, the continuance of the looseness is sometimes so long protracted, as in the end to prove fatal. In this alarming stage
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of the disease, when the stools are very frequent, and involuntary, and all appearances threaten danger, Dr. Denman says that a clyster of chicken-water injected every one, two, or three hours, or as often as possible without fatiguing the patient too much, together with the following draught taken every six hours, has produced better effects than could be expected.

℞ Pulv. rad. ipecac. gr. i.

Confect. damocrat. ℥i.

Aq. alexeter. simp. vel

Cinnamom. simp. ℥iſs. f. haustus.

While these medicines are used, we should endeavour to mitigate the pains of the belly by relaxing applications. During the course of the disease the patient ought to drink freely of diluting liquors, and abstain from every thing of a heating quality, unless great faintness should indicate the use of a small quantity of some cordial medicine.

CHAP.

C H A P. XXI.

Of the MILK FEVER.

THIS fever usually supervenes a few days after delivery, when the *lochia* begin to abate, and the breasts become turgid with milk. Having nothing malignant in its nature, and proceeding entirely from too copious a derivation of the fluids to an unaccustomed secretion, it is seldom either dangerous or of long continuance, and terminates with the relaxation of the distended parts, and a gentle diaphoresis.

It may be distinguished from every other febrile disorder, by the pain and distension of the breasts, which sometimes become hard, hot, and inflamed.

When the symptoms rise not to any considerable height, it is generally cured by the help of a slender diet only, without any medicinal assistance. But if it should prove more violent, as sometimes happens,

pens, especially in young women of a plethoric constitution, after their first delivery, it requires farther attention. In such a case, the first step in the method of cure is, to abate the inflammation by bleeding, which ought here to be performed in the ankle. Afterwards, if the breasts are hard, very turgid, or inflamed, emollient fomentations and cataplasms ought to be applied to them. I have frequently used warm milk alone, and the common poultice of bread and milk, with the addition of a little oil, or the ointment of althæa. If the breasts are considerably hard, a small quantity of compound spirits should be mixed with the fomentation, as a discutient.

Besides the puerperal and milk fevers, to which child-bed women are liable, they may also be accidentally seized with others, more or less of an inflammatory or putrid nature. But as such complications are indeterminate, nothing farther
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can be said of them in general, than that the cure must be conducted with a judicious regard to the several disorders; remembering always, when opposite indications take place, to pay the greatest attention to those which are the most urgent and indispensable.

C H A P. XXII.

AFTER-PAINS.

SOON after delivery, women are generally seized with considerable pain in their loins, groins, and lower part of the abdomen, proceeding from the late distension of the ligaments of the uterus. These complaints are much exasperated by an obstruction of the *lochia*. Of themselves, however, they are seldom productive of any dangerous effects, and may be clearly distinguished from that tenderness of the belly, which is natural to the puerperal

fever, by the absence of tumefaction and the other obvious symptoms of that disease.

These pains may be relieved, and generally even prevented, by giving oleaginous medicines soon after delivery; such as the oil of sweet almonds, and sperma-ceti, to which some opiate may be added, if requisite. A dram of sperma-ceti, with an equal quantity of theriac. andromach. given occasionally, and washed down with a little warm wine, or any gentle cordial, is a very common medicine for this purpose. Or the following may be used in place of it.

℞ Ol. amygdal. dulc. unc. duas.

Syr. balsamic. unc. unam.

Laudan. liquid. guttas triginta.

Misce.

Capiat cochlear. unum subinde.

If the pains be attended with flatulence in the bowels, which generally increases them,

them, a small quantity of some carminative may be given along with the above medicines ; and even a gentle clyster, with which a sufficiency of camomile flowers, and fennel seeds, is boiled.

To prevent, or mitigate, these pains, the belly should likewise be kept warm, and the swathing not too tight. Whatever is drank ought to be made tepid ; and rest indulged, as much as possible.

Besides the after-pains, affecting the ligaments of the uterus, and to which child-bed women are liable without the concurrence of any unfavourable accident, they are also frequently troubled with flying pains, of the rheumatic kind, occasioned generally by catching of cold ; and these, as may naturally be supposed, require a treatment very different from the former. Diaphoretic medicines are, in this case, the only remedy. I have often sued the following with success.

C c 2

℞ Aq.

℞ Aq. alexeter. simp. unc. sex.

Sp. minder. fescunciam.

Tinctur. croci drachmas tres.

Syr. com. unciam unam. Misce.

Capiat cochlear. duo omni bihorio.

CHAP. XXIII.

Of HYSTERIC Symptoms.

THE symptoms of the hysteric disease so much resemble those of others, that when they happen to women in child-bed, they frequently mislead the physician in forming his opinion of the case; and I have known more than one instance, where a hysteric pain in the bowels accidentally coinciding with the milk fever, produced a fatal error in practice. Such a mistake may be the more readily committed when the spasms

are interrupted, so that on these occasions the colour of the urine, which is one of the principal characteristics of the hysteric disease, may be heightened by the fever. If such a fluctuation of circumstances should occur, our judgement may in general be rightly determined by an attention to the concomitant symptoms; or if the case should still appear doubtful, we may be fully satisfied whether the pain be of an inflammatory or an hysteric nature, by the application of foetid substances to the nostrils. When by any certain criterion we discover the symptoms to be of the latter kind, a galbanum plaster ought to be applied to the navel, and anti-hysteric medicines administered. In child-bed women, however, we must only attempt to alleviate, and not exterminate, the disease, till their recovery qualifies them for the use of such exercise as corroborating medicines require.

C H A P. XXIV.

Of the Dilaceration of the PERINÆUM.

WHEN a labour has been extremely difficult, or rough and unskilful management used in the delivery, the perinæum is sometimes rent asunder, so that the fæces are discharged by the vagina, as well as the anus. This accident, tho' highly mortifying, is not attended with much danger; only, when once it has happened, the return of it is scarcely to be avoided in a future delivery; as the vagina must necessarily be somewhat straitened by the method of cure, which is always the manual operation.

C H A P. XXV.

Of the Diseases of the BREASTS.

THE flux of milk towards the breasts soon after delivery, frequently exposes child-bed women to various disorders in these parts, arising generally from the quantity, consistence, or other qualities of the newly secreted fluid. The most usual of such complaints are, a hardness, or inflammation, with all its various consequences, *varices*, excoriation, and fissures in the nipples.

When a hardness, or inflammation of the breasts is produced by a superabundant quantity of milk, the appearance of those disorders is generally limited to a fortnight or three weeks after delivery, within which time they are apt to be excited by a premature suppression of the *lochia*.

Too great a flux of milk to the breasts may be usually prevented by covering

them, presently after delivery, with diachylon plaster; or where that proves insufficient for the purpose, it is common to apply a mixture of *ung. alb.* and *popul.* spread upon linen. Various other prophylactic remedies, of a cooling or astringent nature, are also recommended; such as a mixture of oil of roses and vinegar, used in the same manner as the former, or rags dipt in brandy, and applied to the *axilla*. Diachylon plaster, however, is generally found sufficient where the mother intends to be nurse herself, and the ingress of the milk is therefore not to be too much restrained.

When, notwithstanding the early use of these topical applications, the flux of milk into the breasts is productive of immoderate tumefaction, we must have recourse to the method of cure consonant to a state of inflammation. If the patient, therefore, is plethoric, the fulness of the vessels ought to be diminished,

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ed, by bleeding in such a quantity as may be suitable to her present circumstances, and the use of gentle purgation; at the same time that the observance of a moderate and slender regimen must be enjoined. The milder diaphoretics, and diuretics, which promote the thinner secretions from the blood, are here likewise serviceable, by causing a derivation from the breasts. But of all remedies, the most efficacious are emollient and discutient applications to the parts affected. After the previous use of such evacuations as have been mentioned, when these are judged necessary, the following fomentation is of great advantage for diminishing the tumour.

℞ Fol. malvæ.

Alth. ana semimanipul.

Flor. chamæmel.

Sambuci ana manipul. unum.

Coque in aq. fontan. q. s.

colaturæ libræ unæ adde.

Sp. vin. camphorat. unc. duas. m. f.

fotus.

This

This fomentation ought to be used warm frequently, and a poultice for the same intention should be kept constantly applied during the intervals.

If discutient applications should prove ineffectual, and the tumour tends to supuration, it ought, as soon as it is ripe, to be opened in the most dependent part, either with the lancet or caustic. The former method is the most proper where the impostumation is of a benign and laudable kind ; as, on the other hand, the latter is preferable if there appears to be any sinus, or a tendency of the tumour to a schirrous or cancerous state. The ulcer is afterwards to be treated according to the common rules enjoined in disorders of that kind.

A frequent cause of hardness in the breasts of child-bed women is a coagulation of the milk ; to prevent which, the parts ought to be kept close and warm.

To discuss such a hardness, the fomentation above-mentioned is highly serviceable, as is likewise fresh drawn linseed oil, frequently used by way of liniment.

Where *varices* appear in the breasts, if the patient is plethoric, venæsection is adviseable; after which, astringent fomentations are to be prescribed, to restore the firmness of the relaxed vessels.

Excoriations and fissures of the nipples, though seldom productive of dangerous effects, are often very troublesome to women who give suck. These complaints proceed generally from a distension or rupture of the small vessels by the quantity of the milk, though they may likewise be a consequence of venereal infection, or ulcers in the mouth of the child. In the case of a simple excoriation, it is a common practice to foment it now and then with warm milk, or to apply fresh cream to the nipple, either by way of liniment or spread
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upon fine linen. The following artificial application, or the like, may also be used for the same purpose.

℞ Gum. arabic. drach. duas.

Sem. cydonior.

Psyl. ana scrupul. duos. Coque parum in aq. rosar. damascen. unciis tribus, et colaturæ adde.

Mel. rosat. drachmas sex. m. f. mucilago.

It is to be observed, however, that such applications are most proper when the *fabrillæ* of the nipples appear to be dry and parched: for if these are lax and moist, more astringent liniments are necessary. The following may be used with advantage in this case.

℞ Ung. pomat. recent. semunc.

Pulv. boli. armen.

Amyli ana sesquidrach.

Sacchar. alb. drach. unam.

Croci pulv. grana quinque. m. f. linimentum. What-

Whatever liniments are applied to the nipples, they ought to be always washed off before the child is permitted to suck : but if the complaints are found to be aggravated by sucking, the child ought either to be weaned, or put to another nurse, and the milk in the breasts of the mother be disused.

When it is judged proper to disuse the milk, on the above or any other account, the breasts, if full, ought always to be drawn before the use of any external application. Afterwards, a common expedient is to bathe them with warm brandy, and then cover them with flannel, or plasters of diachylon. Astringent fomentations and plasters are used for the same purpose, as is likewise honey, applied in the manner of a poultice. Repelling applications, however, ought always to be used with caution, in proportion to the degree of their stypticity; nor should they ever be too strong, too often renewed, or too

too long persisted in ; as they might otherwise prove the means of inducing inflammation or schirrosity : and for the same reason, when the secretion of the milk is not totally prevented by their use, the breasts ought now and then to be drawn, to guard against the injurious consequences which might arise from the stagnation.

During the course of repelling applications to the breasts, the patient ought to use a slender diet ; and if the flux of the *lochia* has totally ceased, the repulsion of the milk should be facilitated by bleeding and purging, in such a degree as is adapted to the constitution and particular circumstances.

A
L E T T E R
ON THE
PUERPERAL FEVER,

To an eminent Physician at VIENNA.

Translated from the original Latin.

A
L E T T E R
 O N T H E
PUERPERAL FEVER.

S I R,

IN compliance with your obliging desire, than which nothing can be more acceptable to me at all times, I send you an account of the several treatises on the Puerperal Fever, that have appeared in Britain within the last three years.

The first, in the order of publication, is a treatise written by Dr. Hulme, physician to the City of London Lying-in Hospital. According to this author, the proximate cause of the Puerperal or Child-bed Fever is an inflammation of the intestines and *omentum*, for the confirmation

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of

of which opinion he appeals to dissections. He supposes the chief predisponent cause of the disease to be the pressure of the gravid *uterus* against the parts above mentioned. “The *omentum*, says he, in the latter part of pregnancy, must either be flat, which is its natural situation, or be rumpled or carried up by the gravid *uterus* in folds or doublings. When this last is the case, which probably is not unfrequently, the danger of a strangulated circulation will be greater.” In the remark which this passage suggests, I am anticipated by Mr. White, whose treatise I shall next give you an account of. He judiciously observes, that were Dr. Hulme’s hypothesis well founded, the disorder ought rather to take place before delivery, and be immediately removed at that period. That it would likewise most generally happen to women at their first labour, when the abdominal muscles are less yielding, and the pains more

more violent; the contrary of which is most frequently experienced to be the case. It also deserves to be remarked, that upon Dr. Hulme's supposition, we cannot account for the disease being more common and fatal in large towns and in hospitals, than in the country and private practice, while other inflammatory disorders are more endemic among those who live in the latter than the former situation. Even admitting the friction of the intestines and *omentum* against the *uterus* to be as violent as Dr. Hulme supposes, is it not highly improbable that any inflammation could be occasioned by the pressure of such soft substances upon each other? or, were this effect really produced, ought not the Puerperal Fever to be more common and fatal after the most laborious deliveries? But this observation is not supported by experience.

As an argument in favour of this hypothesis, Dr. Hulme alledges that it gives a satisfactory answer to the question, “Why all lying-in women have been, “and ever will be subject to this disease? “—because the causes which produce it “are common to pregnant women at all “times, and in all climates.” In this proposition, however, the Doctor supposes such an universality of the disease as is not confirmed by observation. I am assured from undoubted authority, that in many parts of Britain the Puerperal Fever is scarcely known; whereas, were it really produced by the causes he assigns, it would be equally general and unavoidable.

How peculiar soever this author’s sentiments are with respect to the proximate cause of the disease, they have not led him to any method of cure different from the established practice. On this subject he divides his observations into two parts, comprehending under the former the more
simple

simple method of treatment, and under the latter the more complex.

He sets out with remarking, that the patient being generally costive at the beginning of the disease, an emollient opening clyster will often give immediate relief; but if this should not prove effectual, recourse must be had to cathartics. Those which he found answer his purpose best were the *sal catharticus amarus*, the *oleum ricini*, the *tartarum emeticum*, and the *vinum antimoniale*. When the bowels have been sufficiently cleared, and the pain abates, he advises encouraging a gentle diaphoresis by medicines which neither bind the body, nor are heating, such as small doses of *ipecacuanha*, *tartarum emeticum*, or the *vinum antimoniale*, combined with an opiate in a moderate dose, and given about once or twice in the course of the twenty-four hours; administering the saline draughts in the intermediate spaces. If preceding or during this

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course,

course, a sickness at the stomach, or vomiting attend, he advises assisting the efforts of nature, by drinking plentifully of chamomile tea, warm water, or any other diluting liquor. He concludes with recommending a cooling regimen, rest of body, and tranquillity of mind, prohibiting all kinds of bandage upon the abdomen, and enjoining particular attention to the state of the bowels, which ought to be kept gently open for some time, even after the disorder seems to be gone off, till the patient be quite out of danger.

So much for the simple treatment: I now proceed to the second part, where he describes the method of practice when the disease is in its more irregular and complicated state.

When a diarrhœa accompanies the disease, he observes that it ought by no means to be checked, but supported, by ordering

ordering the patient to drink plentifully of mild aperient liquors. If the pain of the hypogastric region be attended with stitches in the sides, or over the pit of the stomach, and a pulse that resists the finger pretty strongly, he remarks that bleeding would then be highly necessary: declaring his opinion, however, that in the Puerperal Fever, bleeding is only to be considered as a secondary means of relief, though the first in point of time; that it ought to be advised with great caution, and that the greatest dependance is always to be placed upon evacuations by stool,

After this general view of what is most material in Dr. Hulme's treatise, I cannot refrain from signifying my opinion that there is some inconsistency in his method of cure, when considered with relation to the idea he entertains of the proximate cause of the disease. For while he supposes the Puerperal Fever to pro-

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ceed

ceed from an inflammation of the intestines and *omentum*, he not only advises vomiting, but great caution with respect to bleeding. At the same time that I make this remark, which I submit to your judgment, I acknowledge that he has drawn the proper line between the cases in which venæsection may prove either advantageous or prejudicial, determining it to be indicated, or opposed, by the period of the disease, the state of the pulse, and the various concomitant circumstances. Let me add, that in considering a due regulation of the alvine discharge as a matter of the greatest importance in the Puerperal Fever, he coincides with the opinion I have many years entertained of this disease.

The book which succeeded the preceding treats of the management of pregnant and lying-in women, and is written by Mr. White, of whom I have already made mention. He begins with
delivering

delivering an account of the causes and symptoms of the Puerperal Fever, which he imputes to a putrescent disposition of the humours, contracted during pregnancy, and fomented by the hot regimen commonly used by women in child-bed. In conformity to this opinion, the chief means which he recommends for preventing the disease is a cool regimen, and free circulation of air, which he clearly evinces to be of the greatest importance. With respect to bleeding, he informs us, that upon the strictest enquiry, he cannot find that those who have bled the most copiously have had the greatest success, either in private or hospital practice. He even seems to question the propriety of this evacuation in any case, but approves of emetics, cathartics, and clysters, for cleansing the *primæ viæ*; and likewise of such medicines and diet as will correct the putrid colluvies: adding, that an upright posture,

I ture,

ture, and free ventilation are at all times useful, and absolutely necessary, both for the prevention and cure of the disease.

I leave to your judgement to determine the justness of Mr. White's sentiments respecting the universal inexpediency of bleeding ; as I formerly declared my own opinion, that, though this evacuation ought in general to be used with great caution in the Puerperal Fever, there are certainly many cases in which it is both necessary and advantageous. That those " who have bled the most *copiously*," to use Mr. White's own words, should not have proved the most successful, I am not surprised. The tendency of the Puerperal Fever is certainly to putrefaction ; and the general issue must depend upon the method of cure which is most universally applicable : yet, to me, this observation appears not to be sufficient for supporting so absolute an inference against the utility of bleeding in every case,

case, when the evacuation is strongly indicated by the symptoms, and the quantity of it properly regulated; especially, as satisfactory evidence is produced of venæsection having been used with advantage. The endless modifications of the disease in different persons, and under different circumstances, with the infinite variety in the contingent combination of inflammatory and putrid symptoms, will, in my apprehension, ever frustrate the successful establishment of such a determinate method of cure, as would totally exclude phlebotomy, without regard to the quantity of the vital fluid, or the force with which it is circulated.

The treatise I am next to mention is entitled, *Practical Observations on the Child-bed Fever*, by Dr. Leake, physician to the Westminster Lying-in Hospital. These observations were made in the interval from April 1768 to the Autumn of the year 1770, but chiefly from December

1769 to May 1770; during which period the Child-bed Fever appears to have prevailed much about London. What enhances their value is, that they were also made when the patients were assisted only by medicines of the simplest kind.

This fever, we are told, generally commenced the evening of the second, or morning of the third day after delivery, with a rigor, or shivering fit. Sometimes it invaded soon after delivery, and at other times, though rarely, it has seized so late as the fifth or sixth day. Now and then it seemed to be occasioned by catching cold, or errors in diet, but oftener by anxiety of mind. Sometimes the thirst was great, though the tongue had, in general, a better appearance at the beginning than is common in other fevers. It was seldom ever black or very foul, but, as the disease advanced, became white and dry, with an increase of thirst, and at last was a brownish colour towards the root, where

where it was slightly covered with an inspissated mucus. The loss of strength was so great and sudden, that few of the patients could turn in bed without assistance; even so early as the first or second day after the attack. The *lochia*, from first to last, were not obstructed, nor deficient in quantity; neither did the quality of this discharge seem to be in the least altered from its natural state; a presumption, says the author, that the *uterus* was not at all affected: and of this he was convinced by making a considerable pressure above the pubes with the hand, which did not occasion pain; but when the same degree of pressure was applied higher, between the stomach and umbilical region, it became almost intolerable. A perfect crisis seldom ever happened in this fever, which he imputes to the great oppression of the vital powers, whereby they were rendered unable to produce such an event. When the disease proved mortal, the patient generally died
on

on the tenth or eleventh day from the first attack. In those who died of the fever, the *omentum* was found suppurated; an inflammation of which part, or of the intestines, the Doctor concludes to be the proximate cause of the disease. As this opinion corresponds with that of Dr. Hulme, it is proper to observe, that Dr. Leake affirms his having expressed it in his public lectures, a considerable time before the publication of the former gentleman's treatise. But however these writers agree in ascribing the proximate cause of the fever to an inflammation of the intestines and *omentum*, they totally differ with respect to the means by which they suppose this event to be produced. Dr. Hulme, as I have already observed, imputes it to the pressure of the gravid *uterus*; whereas, on the contrary, Dr. Leake ascribes it to the removal of this pressure, and to the contraction of the *uterus* after delivery, especially when these

these circumstances are accompanied with an unhealthy constitution of the atmosphere.

In consequence of this idea of the cause of the disease, we may suppose that venæsection was highly necessary in the cure. Accordingly the Doctor affirms that it is the only remedy which can give the patient a chance for life. But, though it is the principal resource to be depended upon at the beginning of the fever, he observes that it will seldom prove of service after the second or third day, and, if directed yet later, will only weaken and exhaust the patient; when matter having begun to form in the *omentum*, the progress of the disease can be no longer prevented by that evacuation. At this period the blood begins to be tainted by the absorption of the purulent fluid, and the fever, from being inflammatory, is changed into a putrid nature.

After

After bleeding in such a quantity as the symptoms require, he advises that the corrupted bile be evacuated and corrected as soon as possible; that the diarrhoea, when excessive, be restrained by emollient anodyne clysters, and gentle sudorifics, or even by opiates and mild astringents, when the patient's strength begins to sink under the discharge; and lastly, that where the signs of putrefaction or intermission take place, antiseptics and the Peruvian bark may be administered.

I shall make no other remark on the history of this fever, than that bleeding was found more generally necessary and successful than has occurred to my observation in the cure of Puerperal Fevers. Indeed the great uniformity of the symptoms in all Dr. Leake's patients seems to authorize an opinion, that the fever which he describes was in great measure a disease *sui generis*, and depended much upon the constitution of the air, preceding,
and

and during the period in which the fever prevailed. The characteristics of the disease, however, being those of the Puerperal Fever, his observations certainly confirm the necessity of bleeding in many cases.

The treatise which remains to be taken notice of, is an essay by Dr. Kirkland, who has also made many judicious observations on the subject.

He rejects the opinion that the Puerperal Fever is a disease *sui generis*, and arises always from the same cause. The particular situation of child-bed women, he acknowledges, occasions a similarity in the appearance of all febrile symptoms; but he affirms that the same kind of fever may be produced by various causes: for instance, by an inflammation of the *uterus*, or abdomen, by putrid blood, or other matter, and putrid miasms. The symptoms, he observes, will vary according to the time of seizure.

If the fever happens in three or four days after delivery, all the symptoms usual to the situation of the patient will make their appearance; but if it does not invade till the milk has been secreted, and the lochial discharge is nearly finished, the symptoms, if the breasts are properly drawn, will, for the most part, be those only, which are common to that kind of disorder by which the fever has been produced.

With respect to the cure of Puerperal Fevers, Dr. Kirkland advises the antiphlogistic method when they arise from inflammation; but when this method fails of success, and a diarrhœa supervenes, the disease has changed its nature, having become more or less putrid, and requires a very different treatment.

This author's observations relative to the management of the diarrhœa, are extremely judicious. No one would purge
and

and bleed, says he, to cure the Colliquative Fever, arising from the absorption of matter in large wounds, and yet the only difference is, that in the Puerperal Fever, the matter absorbed from the *uterus*, &c. acts with more violence; because the blood is commonly thinner, and the habit in a more irritable state. We see, continues he, that absorbed matter purges as effectually, as if any purging medicine had been given by the mouth; and may we not therefore do harm by additional purging, when there has been a large evacuation, especially as purges, in this case, are incapable of entirely removing the *fomes morbi*?

He considers the Peruvian bark as the principal remedy, as soon as the pulse sinks, the heat is lessened, and the stomach will bear it. If the bark increases the diarrhœa beyond moderation, he joins with it small doses of laudanum; but if the diarrhœa were entirely to stop, without the

fever going off, in place of the laudanum he advises a proper quantity of rhubarb. Should the diarrhœa, notwithstanding the use of the medicines proposed, become so violent as to endanger the patient, he joins Mr. White in recommending the columbo root, which is a warm cordial, and removes the irritability of the stomach and intestines more powerfully than any other bitter he knows.

Thus, Sir, have I laid before you a general, but faithful account of what has been published of late in this country with respect to the Puerperal Fever. The points that are chiefly agitated may be reduced to three, namely, the cause of the fever, the propriety of bleeding, and the most prudent treatment of the diarrhœa. I beg leave to add only a few words on each of these heads.

The Puerperal Fever being peculiar to women in child-bed, there is certainly
2 reason

reason for imputing it to some or other of the circumstances attending that situation. It appears incontestably that this fever arises often after the most easy delivery, and even when the secretion of the milk, and discharge of the *lochia* proceed in the natural manner. To neither of these causes, therefore, can we ascribe it with any degree of justice. An irritability of the habit would seem to be the most general peculiarity of child-bed women; but even this, we cannot suppose, could constantly produce such uniform effects, without the interposition of some local cause. Shall we then admit that it is occasioned by an inflammation of the intestines and *omentum*? It is alledged by some, that the facts produced in support of this opinion are the effects, not the causes of the disease. I leave you to determine a point concerning which the writers in this country are so much divided in their sentiments. At the same

time permit me to observe, that, if the Puerperal Fever be really excited in consequence of the removal of the pressure of the gravid *uterus*, there is room to hope for great benefit from swathing the abdomen after delivery.

With respect to bleeding, it seems to be evinced, that in the beginning of the Puerperal Fever, when the signs of inflammation run high, this evacuation is necessary; but that when the disease has continued for some days, and assumed a putrid type, venæsection is found to be prejudicial.

It has been long a matter of controversy among physicians, whether the diarrhœa, in the Puerperal Fever, is really critical or symptomatical. By the latest writers this important question is not unanimously determined on either side. Both parties, however, admit that the discharge ought not to be imprudently restrained;

restrained; and it affords me satisfaction to find this doctrine generally recommended, as I have ever observed a proper regulation of the diarrhœa to be of great advantage in the disease.

Accept of this imperfect endeavour to execute the commission with which you have been pleased to honour me, and be assured that I ever am, with inviolable esteem,

S I R,

Your most obedient, obliged,

And faithful humble servant,

H. MANNING.

P O S T S C R I P T.

I Had no sooner concluded my letter than I received a new treatise on Puerperal Fevers, sent me by my bookseller, of which I shall subjoin a brief account.

This production is written by Dr. Butter, the author of a treatise on the Kinkcough, published in 1773, and of whose recommendation of Hemlock in that disease, I formerly acquainted you. His opinion respecting the cause of Puerperal Fevers is ultimately the same with what he maintained concerning the origin of the Kinkcough. He ascribes the disease entirely to a morbid irritability, and the accumulation of a putrid *coluvies* in the first passages; considering all inflammatory symptoms as an accidental

dental complication, and by no means essential to the fever.

He regulates the method of cure by two indications, the first of which is to promote two, three, or four stools daily, in a manner suited to the strength of the patient, till such time as they put on a natural appearance. For this purpose he recommends a bolus, consisting of ten grains of rhubarb, and an equal quantity of cordial confection, given every night, adding or diminishing a few grains according to the effect. If the bolus should fail to operate, he advises the assisting it with a clyster of warm water, impregnated with a large spoonful of common salt.

The second indication is to relieve all uneasy symptoms. For the heat, thirst, and scarcity of urine, he prescribes the following julep.

“ Take

“ Take of mint water, five ounces ;
“ camphorated julep, two ounces ;
“ syrup of orange-peel, an ounce ;
“ pure nitre, forty grains : mix
“ them.

He advises the drinking plentifully of thin cooling liquors, as barley water, and gruel ; and that the patient be confined to these, and small broth, by turns, for all her food during the course of the fever ; taking this kind of nourishment often, and particularly at those times when she happens to be low.

In case of great lowness, and when the food does not answer the purpose of a cordial, he recommends a large spoonful of the subsequent mixture to be given now and then.

“ Take of mint water, seven ounces ;
“ syrup of orange-peel, one ounce ;
“ volatile salt of hartshorn, thirty-
“ two grains : mix them.”

If

If this mixture prove heating, it is to be used without the salt. Both the julep and mixture, he observes, besides answering the purposes above mentioned, often act as carminatives; and so relieve not only the breath, but the pains of the head and belly. If the head-ach continue obstinate, he advises a blister to be applied between the shoulders, or to the arm, which he says will always give relief; and generally, likewise, procures refreshing sleep. When the patient is troubled with vomiting, or retching, he recommends a plentiful use of chamomile tea; and, when it is necessary, of eight or ten grains of ipecacuanha. When the belly is distended, and hard, or much affected with pain, he advises to foment the part with flannels, wrung out of the common fomentation, for an hour together, at the distance of every six, eight, or twelve hours; and afterwards to anoint it with camphorated oil

oil. This method, he observes, sometimes brings on a looseness; in which case, or when the stools are too frequent from any other cause, they are to be moderated, but not stopped, by giving a spoonful of the following opiate after every loose stool.

“ Take of spring water, four ounces;
 “ proof spirit, syrup of orange-peel,
 “ each half an ounce; laudanum,
 “ twenty drops: mix them.

When, notwithstanding the means above recommended, a pain continues fixt, and violent in the belly, he expresses great confidence in the good effects of a blister. He prohibits bleeding, unless the disease be complicated with inflammatory symptoms, according to the degree of which the evacuation ought to be proportioned.

The author likewise delivers some directions relative to the prevention of the disease,

disease, which, as they consist of nothing more than a proper regulation of the non-naturals, I forbear to enumerate.

Upon the whole, with respect to the cause of the Puerperal Fever, Dr. But-ter appears to entertain nearly the same opinion with Mr. White, whose doctrine I have already mentioned. Whether a disease attended with such peculiar symptoms as the Puerperal Fever, can depend principally upon an irritability, which is not restricted either to the pregnant or puerperal state, I submit to your determination; and shall only observe, that amid the diversity of opinions respecting the proximate cause of this fever, the several writers differ less from each other in the method of cure, than might be expected where so great an opposition of theoretical sentiments prevails. For after endeavouring to establish indications correspondent to their own particular systems, those who contend for the expediency

ency of promoting the intestinal discharge, dissuade not from a recourse to phlebotomy when the disease is attended with inflammatory symptoms; while, on the other hand, the most strenuous advocates for bleeding admit the utility of the former evacuation. To conclude: it appears that a due regulation of the alvine discharge is necessary through the whole course of the Fever, but venæsection only sometimes; and this, I think, may be established as an axiom in physic.

F I N I S.

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